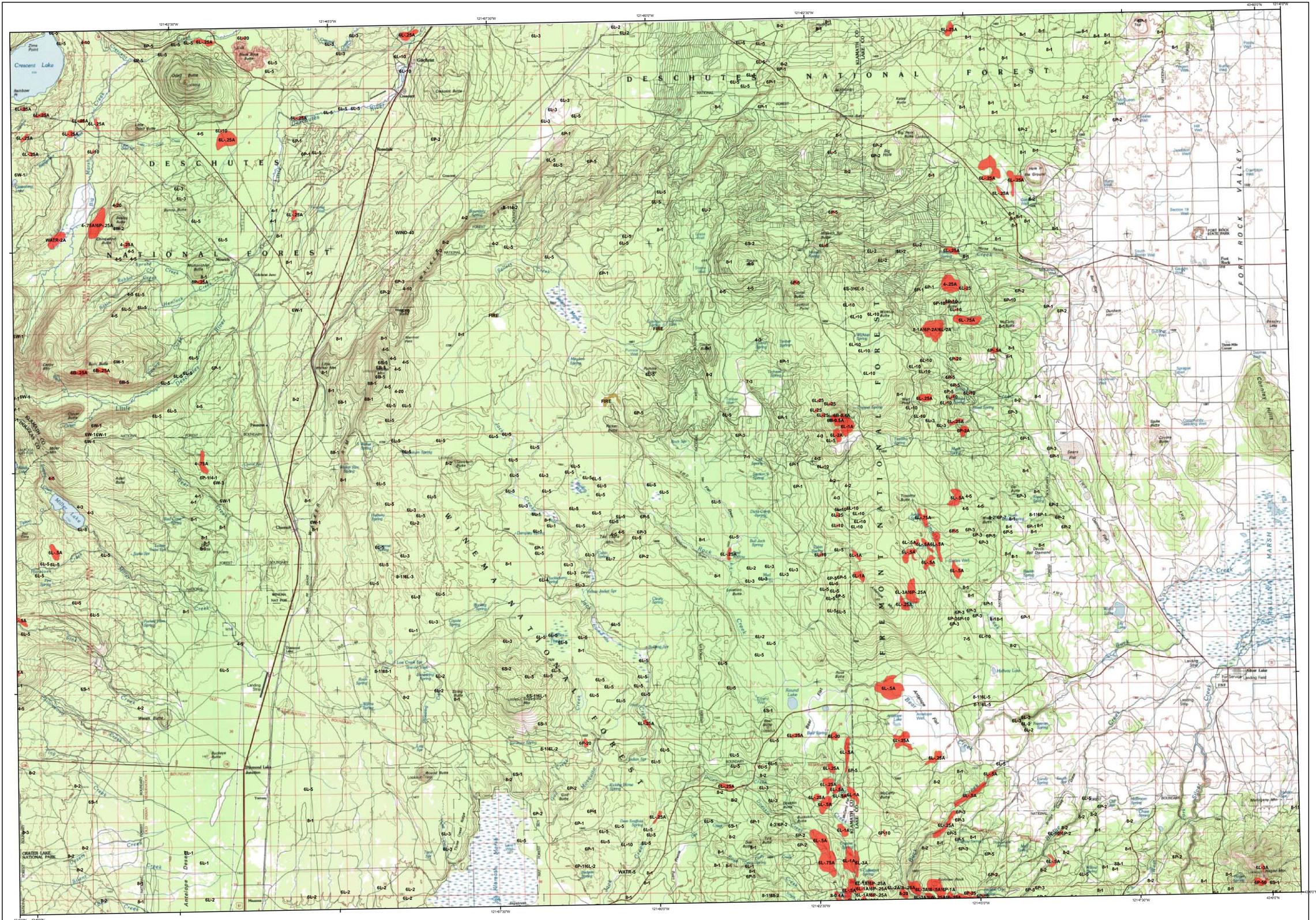


2008 Aerial Insect and Disease Survey

USGS 100K Quad: Crescent - A143121; 4L



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	Moose budworm	3	Spruce beetle
BP	Sugar pine tortrix	4	Fir engraver
BS	Western spruce budworm	5	Western balsam bark beetle
BY	Blyth's lightlophodermella	6	Mountain pine beetle
CH	Larch	6J	Jeffrey pine
HL	Western hemlock looper	6K	Mountain pine beetle
LG	Green striped forest looper	6L	Mountain pine beetle
LL	Larch looper	6M	Mountain pine beetle
LS	Black pine needle scale	6N	Mountain pine beetle
MD	Douglas-fir budmoth	6O	Mountain pine beetle
ML	Larch budmoth	6P	Mountain pine beetle
MN	Douglas-fir needle midge	6Q	Mountain pine beetle
MS	Spruce budmoth	6R	Mountain pine beetle
ND	Needle miner	6S	Mountain pine beetle
NJ	Needle miner	6T	Mountain pine beetle
NK	Needle miner	6U	Mountain pine beetle
NL	Needle miner	6V	Mountain pine beetle
NO	Needle miner	6W	Mountain pine beetle
NP	Needle miner	6X	Mountain pine beetle
NS	Needle miner	6Y	Mountain pine beetle
NT	Needle miner	6Z	Mountain pine beetle
NW	Needle miner	7	Western white pine
OK	Western oak looper	7A	Ponderosa lodgepole pine
OL	Western oak looper	7B	Ponderosa pine
OB	Pine butterfly	7C	Pole-sized ponderosa pine
OC	Pine needle cast	7D	Silver fir, true fir
OD	Pine needle cast	7E	Conifer
OE	Phantom hemlock looper	7F	Black stain root disease
OF	Phantom hemlock looper	7G	Root collar rot disease
OG	Phantom hemlock looper	7H	Conifer
OH	Pine needle scale	7I	Water damage
OI	Pine needle scale	7J	All species
OJ	Pine needle scale	7K	All species
OK	Pine needle scale	7L	All species
OL	Pine needle scale	7M	All species
OM	Pine needle scale	7N	All species
ON	Pine needle scale	7O	All species
OO	Pine needle scale	7P	All species
OP	Pine needle scale	7Q	All species
OQ	Pine needle scale	7R	All species
OR	Pine needle scale	7S	All species
OS	Pine needle scale	7T	All species
OT	Pine needle scale	7U	All species
OU	Pine needle scale	7V	All species
OV	Pine needle scale	7W	All species
OW	Pine needle scale	7X	All species
OX	Pine needle scale	7Y	All species
OY	Pine needle scale	7Z	All species
OA	Pine needle scale	8	Western white pine
OB	Pine needle scale	8A	Ponderosa lodgepole pine
OC	Pine needle scale	8B	Ponderosa pine
OD	Pine needle scale	8C	Pole-sized ponderosa pine
OE	Pine needle scale	8D	Silver fir, true fir
OF	Pine needle scale	8E	Conifer
OG	Pine needle scale	8F	Black stain root disease
OH	Pine needle scale	8G	Root collar rot disease
OI	Pine needle scale	8H	Conifer
OJ	Pine needle scale	8I	All species
OK	Pine needle scale	8J	All species
OL	Pine needle scale	8K	All species
OM	Pine needle scale	8L	All species
ON	Pine needle scale	8M	All species
OO	Pine needle scale	8N	All species
OP	Pine needle scale	8O	All species
OQ	Pine needle scale	8P	All species
OR	Pine needle scale	8Q	All species
OS	Pine needle scale	8R	All species
OT	Pine needle scale	8S	All species
OU	Pine needle scale	8T	All species
OV	Pine needle scale	8U	All species
OW	Pine needle scale	8V	All species
OX	Pine needle scale	8W	All species
OY	Pine needle scale	8X	All species
OZ	Pine needle scale	8Y	All species
OA	Pine needle scale	8Z	All species

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2008 Aerial Insect and Disease Detection Survey
Mapscale: 1:100,000
Date: November 19, 2008

Legend

- Defoliating Agents
- Mortality Agents
- Other Damage

The map base was created with TOPO! (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/fid/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:

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-- OR --

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 Natural Resources
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****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.