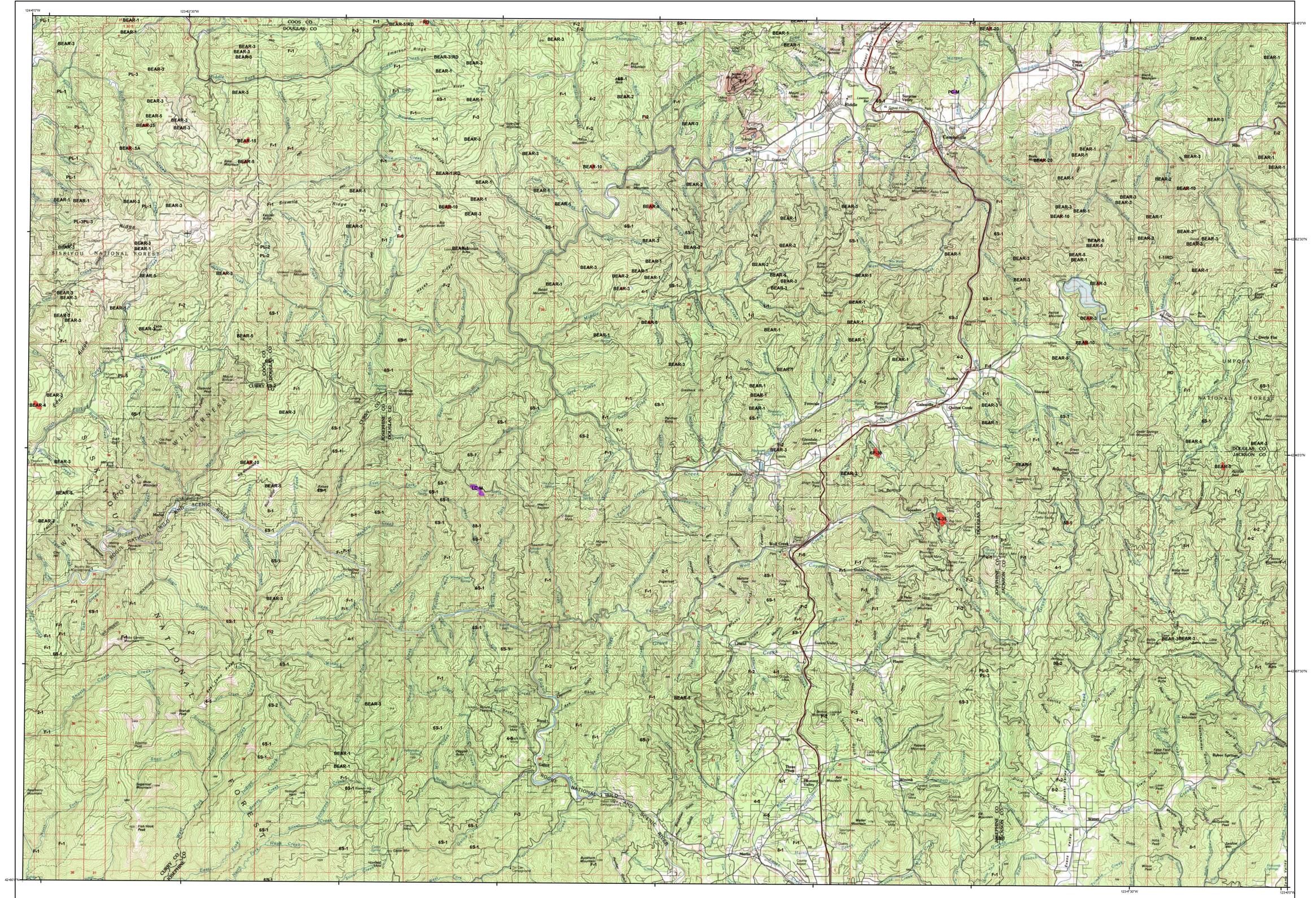


# 2008 Aerial Insect and Disease Survey

## USGS 100K Quad: Canyonville - E142123; 2M



Defoliators		Mortality Agents	
Code	Damaging Agent	Code	Damaging Agent
AS	Spruce aphid	1	Douglas-fir beetle
SB	Western blackheaded budworm	2	Douglas-fir engraver
BM	Modoc budworm	3	Spruce beetle
SP	Sugar pine bark	4	Fire engraver
BS	Western spruce budworm	5	Western balsam bark beetle
BY	Bryant's bright/Opodermella	6	Mountain pine beetle
CH	Larch	6B	Mountain pine beetle
HL	Western hemlock looper	6L	Mountain pine beetle
LG	Green striped forest looper	6P	Mountain pine beetle
LL	Larch looper	6S	Mountain pine beetle
LS	Black pine needle scale	6W	Mountain pine beetle
MD	Douglas-fir budmoth	7	Ips spp.
ML	Larch budmoth	8	Western pine beetle
MN	Douglas-fir needle midge	8B	Western pine beetle
MS	Spruce budmoth	9	Pole-sawed ponderosa pine
ND	Needle miner	BEAR	Bear damage
NJ	Needle miner	BEAR-1	Flatheaded wood borer
NK	Needle miner	BEAR-2	Douglas-fir ponderosa pine
NL	Needle miner	BEAR-3	Black stain root disease
NM	Needle miner	BEAR-4	Park Octid cedar
NP	Needle miner	BEAR-5	Lodgepole pine
NS	Needle miner	BEAR-6	Conifer
NT	Needle miner	BEAR-7	All species
NW	Needle miner	BEAR-8	Wet damage
OL	Western oak looper	BEAR-9	Wet damage
PH	Pine butterfly	BEAR-10	Wet damage
PI	Pine needle cast	BEAR-11	Wet damage
PH	Phantom hemlock looper	BEAR-12	Wet damage
PM	Pandora moth	BEAR-13	Wet damage
PN	Pine needle/health miner	BEAR-14	Wet damage
PS	Pine needle scale	BEAR-15	Wet damage
RC	Needle cast	BEAR-16	Wet damage
S	Sidder mist	BEAR-17	Wet damage
SA	Sawfly	BEAR-18	Wet damage
SD	Sawfly	BEAR-19	Wet damage
SE	Sawfly	BEAR-20	Wet damage
SH	Sawfly	BEAR-21	Wet damage
SK	Sawfly	BEAR-22	Wet damage
SL	Sawfly	BEAR-23	Wet damage
SM	Sawfly	BEAR-24	Wet damage
SN	Sawfly	BEAR-25	Wet damage
SO	Sawfly	BEAR-26	Wet damage
TA	Tent caterpillar/ alder	BEAR-27	Wet damage
TC	Tent caterpillar/ other	BEAR-28	Wet damage
TD	Douglas-fir tussock moth	BEAR-29	Wet damage
TS	Tent caterpillar/ aspen	BEAR-30	Wet damage

USGS 100K Quad: Canyonville - E142123; 2M  
 2008 Aerial Insect and Disease Detection Survey  
 Mapscale: 1:100,000  
 Date: November 18, 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](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/fid/data.shtml](http://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.

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-- OR --

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 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.