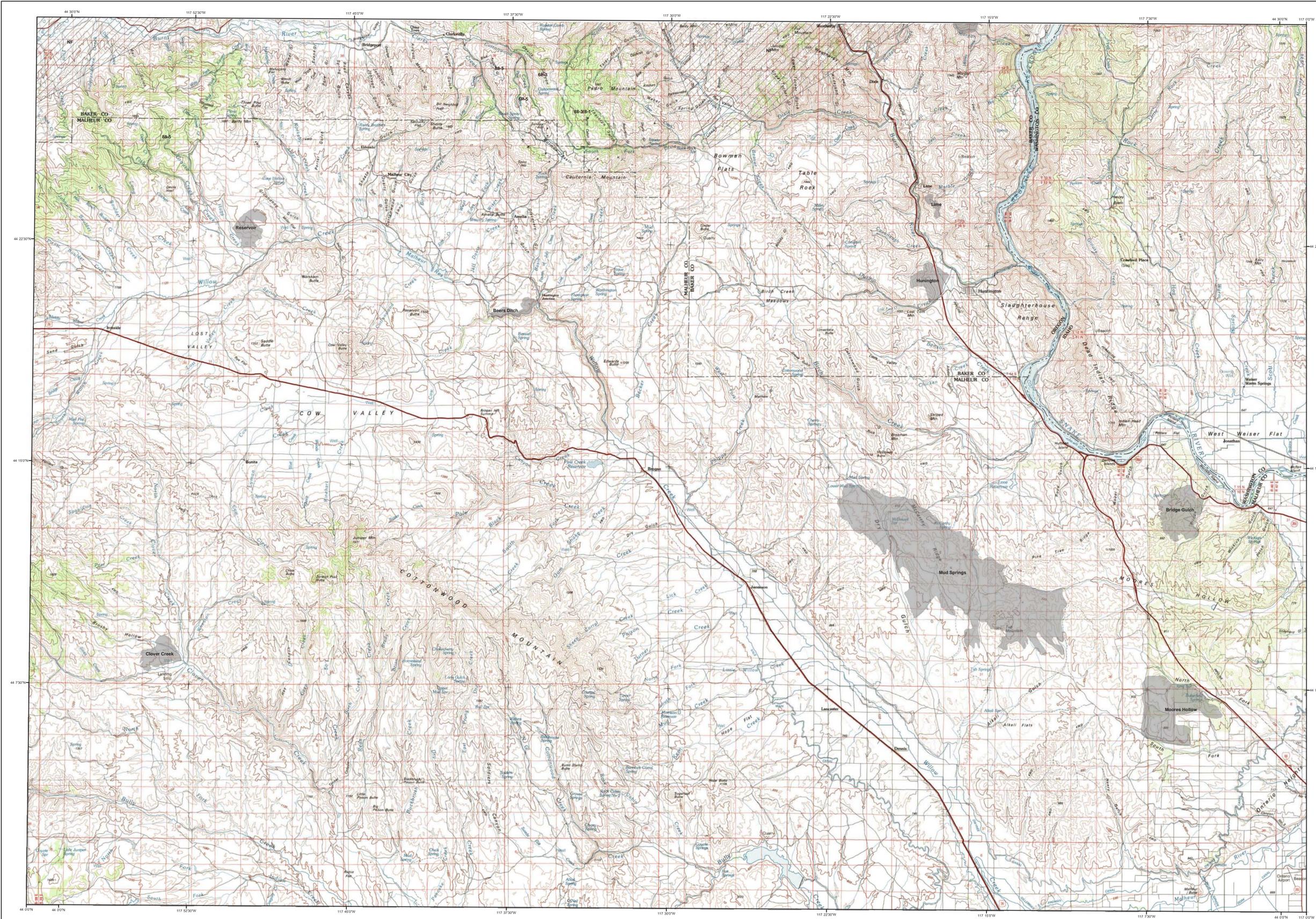


2006 Aerial Insect and Disease Survey

USGS 100K Quad: Brogan - A144117; 8J



Defoliators		Mortality Agents	
Code	Damaging Agent	Code	Damaging Agent
AS	Spruce aphid	1	Sitka spruce
BB	Western blackheaded budworm	2	Western blackheaded budworm
BM	Motoc budworm	4	White fir
BF	Sugar pine borer	5	Lodgepole, ponderosa pines
BS	Western spruce budworm	6	True fir, Douglas-fir, spruce
BY	Bynum's light/ophodermella	6A	Ponderosa pine
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
LZ	Black pine needle scale	6F	Mountain pine beetle
MD	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
NI	Needle miner	6O	Mountain pine beetle
NM	Needle miner	6P	Mountain pine beetle
NP	Needle miner	6Q	Mountain pine beetle
NS	Needle miner	6R	Mountain pine beetle
NT	Needle miner	6S	Mountain pine beetle
NW	Needle miner	6T	Mountain pine beetle
OL	Western oak looper	6U	Mountain pine beetle
PC	Pine butterfly	6V	Mountain pine beetle
PE	Pine needle cast	6W	Mountain pine beetle
PF	Pine needle scale	6X	Mountain pine beetle
PH	Pine hemlock looper	6Y	Mountain pine beetle
PI	Pandora moth	6Z	Mountain pine beetle
PN	Pine needlehead miner	7	Western white pine
PS	Pine needle scale	8	Ponderosa, lodgepole pines
RC	Needle cast	9	Ponderosa pine
SC	Spruce scale	10	Pole-sized ponderosa pine
SA	Sawfly	11	Silver fir, true fir
SD	Sawfly	12	Conifer
SE	Sawfly	13	Conifer
SH	Sawfly	14	Conifer
SI	Sawfly	15	Conifer
SM	Sawfly	16	Conifer
SN	Swiss needle cast	17	Conifer
SQ	Sawfly	18	Conifer
SW	Sawfly	19	Conifer
TA	Tent caterpillar, alder	20	Conifer
TC	Tent caterpillar, other	21	Conifer
TD	Douglas-fir tussock moth	22	Conifer
TE	Tent caterpillar, aspen	23	Conifer

USGS 100K Quad: Brogan - A144117; 8J
2006 Aerial Insect and Disease Detection Survey
 Mapscale: 1:100,000
 Date: December 5, 2006

Legend

- Defoliating Agents
- Mortality Agents
- Other Damage
- Areas Not Flown
- 2006 Large Fires

Source: Northwest Coordination Center

Vicinity Map

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/rid/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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 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.