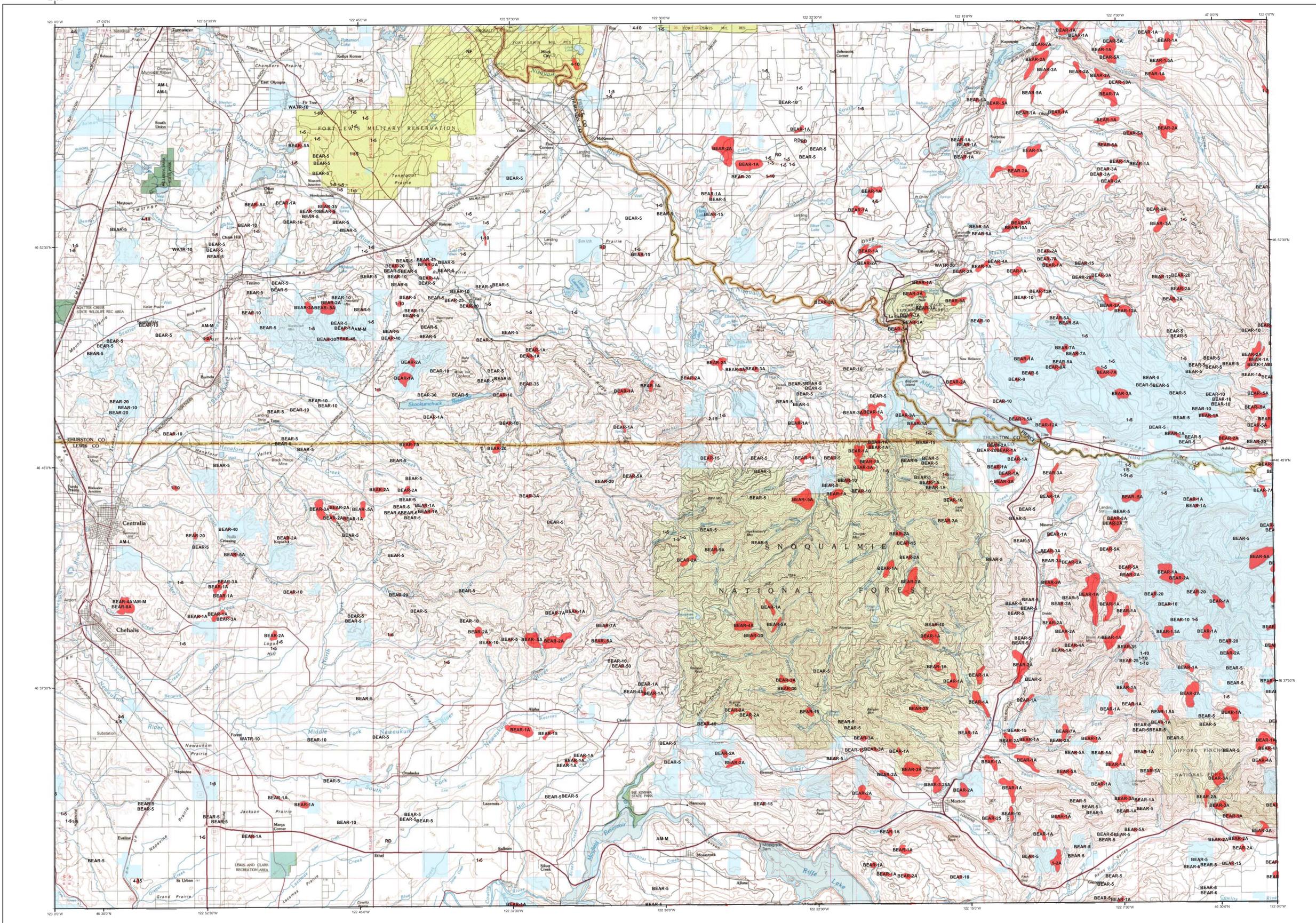


2006 Aerial Insect and Disease Survey

USGS 100K Quad: Centralia - E146122; 3E



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	Motoc budworm	3	Spruce beetle
BP	Sugar pine tortrix	4	True fir
BS	Western spruce budworm	5	Western balsam bark beetle
BY	Burnham's light/ochromella	6B	Mountain pine beetle
CH	Larch	6J	Mountain pine beetle
HL	Western hemlock looper	6K	Mountain pine beetle
LD	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
NM	Needle miner	6W	Mountain pine beetle
NP	Needle miner	6X	Mountain pine beetle
NS	Needle miner	6Y	Mountain pine beetle
NW	Needle miner	6Z	Mountain pine beetle
CL	Western oak looper	7	Western white pine
PH	Pine butterfly	8	Western white pine
PI	Pine needle cast	9	Western white pine
PL	Pine needle scale	10	Western white pine
PM	Pine needle scale	11	Western white pine
PN	Pine needle scale	12	Western white pine
PS	Pine needle scale	13	Western white pine
PT	Pine needle scale	14	Western white pine
SA	Sawfly	15	Western white pine
SD	Sawfly	16	Western white pine
SE	Sawfly	17	Western white pine
SH	Sawfly	18	Western white pine
SI	Sawfly	19	Western white pine
SL	Sawfly	20	Western white pine
SM	Sawfly	21	Western white pine
SN	Sawfly	22	Western white pine
SO	Sawfly	23	Western white pine
SW	Sawfly	24	Western white pine
TA	Tent caterpillar, alder	25	Western white pine
TC	Tent caterpillar, other	26	Western white pine
TD	Douglas-fir tussock moth	27	Western white pine
TE	Tent caterpillar, aspen	28	Western white pine

USGS 100K Quad: Centralia - E146122; 3E
2006 Aerial Insect and Disease Detection Survey
Mapscale: 1:100,000
Date: November 27, 2006

Legend

- Defoliating Agents
- Mortality Agents
- Other Damage
- WaDNR Managed Lands
- Areas Not Flown

Source: Washington Dept. of Natural Resources

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 Arogis 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 Washington Department of Natural Resources. 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:

Washington State Department of Natural Resources
 Resource Protection
 Forest Health
 1111 Washington St. SE
 Olympia, WA 98504

-- 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.