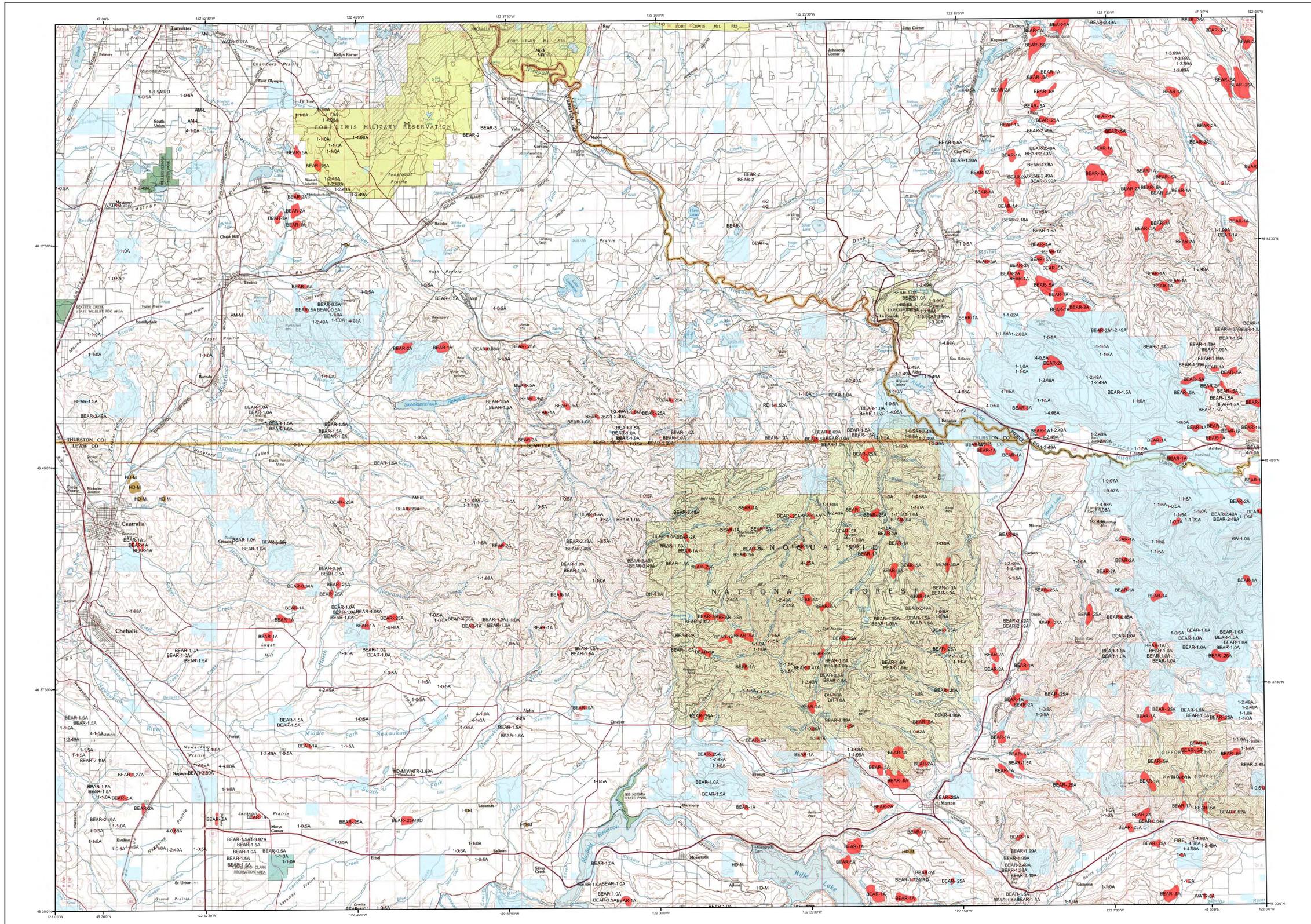


2010 Aerial Insect and Disease Survey

USGS 100K Quad: Centralia - E146122; 3E



Defoliators		Mortality Agents	
Code	Damaging Agent	Code	Damaging Agent
AS	Spine aphid	1	Douglas fir beetle
BS	Western blackheaded budworm	2	Douglas fir engraver
BM	Meadow buprestid	3	Spine beetle
BP	Sugar pine tortrix	4	Fire engraver
BS	Western spruce budworm	5	Western balsam bark beetle
CH	Bynum's big/longhorned sawfly	6J	Mountain pine beetle
HL	Western hemlock looper	6K	Mountain pine beetle
LD	Black pine leaf scale	6L	Mountain pine beetle
MD	Douglas fir budworm	6M	Mountain pine beetle
ML	Larch budmoth	6N	Mountain pine beetle
MS	Douglas fir needle midge	6O	Mountain pine beetle
NS	Spine tortrix	6P	Mountain pine beetle
ND	Needle miner	6Q	Mountain pine beetle
NJ	Needle miner	6R	Mountain pine beetle
NK	Needle miner	6S	Mountain pine beetle
NL	Needle miner	6T	Mountain pine beetle
NI	Needle miner	6U	Mountain pine beetle
NS	Needle miner	6V	Mountain pine beetle
NT	Needle miner	6W	Mountain pine beetle
NW	Needle miner	6X	Mountain pine beetle
OL	Western oak looper	6Y	Mountain pine beetle
PL	Pine needle cast	6Z	Mountain pine beetle
PH	Phantom hemlock looper	7	Iron spruce
PN	Pine needle/needle miner	8	Western pine beetle
PS	Pine needle scale	8A	Western pine beetle
RC	Needle cast	8B	Western pine beetle
S	Spider mite	8C	Western pine beetle
SA	Sawfly	8D	Western pine beetle
SD	Sawfly	8E	Western pine beetle
SE	Sawfly	8F	Western pine beetle
SH	Sawfly	8G	Western pine beetle
SI	Sawfly	8H	Western pine beetle
SM	Sawfly	8I	Western pine beetle
SN	Swainson's sawfly	8J	Western pine beetle
SP	Sawfly	8K	Western pine beetle
SW	Sawfly	8L	Western pine beetle
TA	Tent caterpillar, alder	8M	Western pine beetle
TC	Tent caterpillar, other	8N	Western pine beetle
TD	Douglas fir tussock moth	8O	Western pine beetle
TE	Tent caterpillar, aspen	8P	Western pine beetle

USGS 100K Quad: Centralia - E146122; 3E
2010 Aerial Insect and Disease Detection Survey
Mapscale: 1:100,000
Date: January 26, 2011

Legend

- Defoliating Agents
- Mortality Agents
- Other Damage
- Areas Not Flown

WadNR Managed Lands
 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 ArcGIS insect and disease data are available at: www.fs.fed.us/rn/rfid/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 Swainson's 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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 Resource Protection Division
 Forest Health
 1111 Washington St. SE
 Olympia, WA 98504

-- OR --

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

DISCLAIMER
 Forest Health Protection (FHP) and Washington Department of Natural Resources (WDNR) strive to maintain an accurate Aerial Detection Survey (ADS) Dataset, but due to the conditions under which the data are collected, FHP and WDNR shall not be held responsible for missing or inaccurate data. ADS are not intended to replace more specific information. An accuracy assessment has not been done for this dataset. However, ground checks are completed in accordance with local and national guidelines. <http://www.fs.fed.us/foresthealth/ads/accuracyassessment.shtml>
 Maps and data may be updated without notice. Please cite: "USDA Forest Service, Forest Health Protection and Washington Department of Natural Resources, Resource Protection Division, Forest Health, as the source of this data in maps and publications."