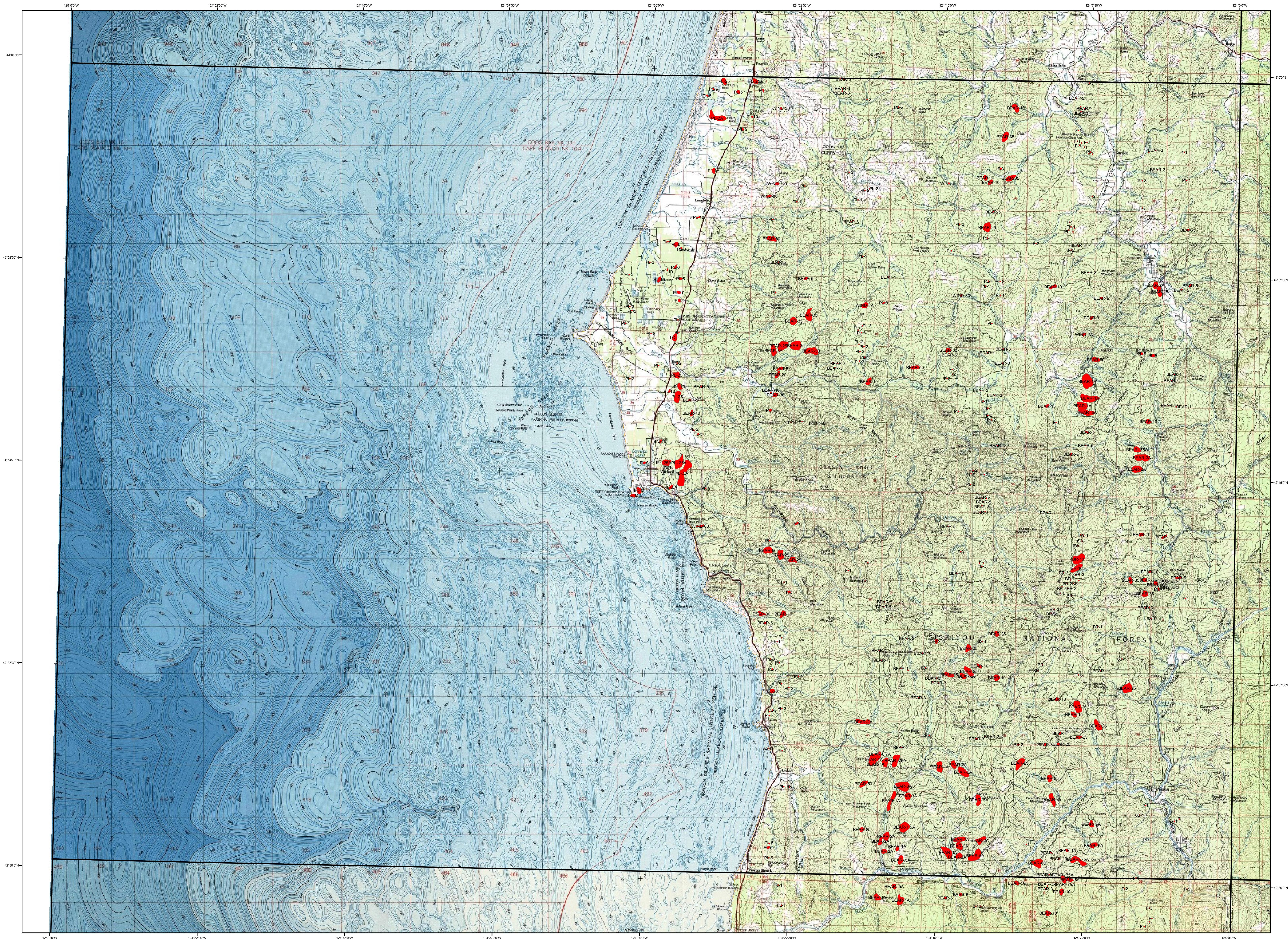


Draft 2008 Aerial Insect and Disease Survey **Draft**

USGS 100K Quad: Port Orford 42124-E1



Legend (For all Possible Agents)

Defoliating Agents

Code	Damaging Agent	Primary Host
AS	Spruce budworm	Silky spruce
BB	Western hemlock budworm	Hemlock spruce, true fir
BS	Western tent caterpillar	Western hemlock, Douglas-fir, Sitka spruce, true fir
CH	Brynia's blight/Lophodermella	Pseudotsuga
HL	Western hemlock looper	Western hemlock
LG	Green stain needle borer	Douglas-fir, Western hemlock
LL	Larch looper	Western larch
LS	Swiss needle scale	Douglas-fir
MD	Douglas-fir budworm	Douglas-fir
MN	Larch needle scale	Western larch
MS	Douglas-fir needle midge	Douglas-fir
ND	Needle miner	Douglas-fir
NK	Needle miner	Lodgepole pine
NM	Needle miner	Knobcone pine
NT	Needle miner	Conifer
NS	Needle miner	True fir
WT	Needle miner	Sugar pine
WL	Needle miner	Western white pine
OL	Western tent caterpillar	Douglas-fir
PC	Pine Butterfly	Ponderosa pine
PH	Phantom hemlock looper	Hemlock, Douglas-fir
PN	Pine needle borer	Ponderosa pine, Jeffrey pine
PS	Pine needle/health mine	Ponderosa, Jeffrey pines
RC	Needle cast	Port Orford cedar
SA	Sawfly	Conifer
SC	Sawfly	Douglas-fir
SF	Sawfly	True fir
SK	Sawfly	Knobcone pine
SM	Sawfly	Ponderosa pine
SNC	Sawfly need cast	Alder
SW	Sawfly	Douglas-fir
TA	Tent caterpillar, alder	Handworts
TC	Tent caterpillar, other	True fir, Douglas-fir
TS	Tent caterpillar, aspen	Aspens

Mortality Agents

Code	Damaging Agent	Primary Host
1	Douglas-fir beetle	Silky spruce
2	Douglas-fir engraver	Hemlock, Ponderosa pine
3	Douglas-fir spruce	True fir
4	Eastern bark beetle	Western hemlock
5	Mountain bark beetle	Pseudotsuga
6B	Mountain pine beetle	Western white pine
6K	Mountain pine beetle	Mountain pine beetle
6M	Mountain pine beetle	Knobcone pine
6P	Mountain pine beetle	Lodgepole pine
6R	Mountain pine beetle	Ponderosa pine
6W	Mountain pine beetle	Western white pine
7	Pinus psyllid	Ponderosa pine
8	Douglas-fir	Western pine beetle
9	BEAR	Ponderosa pine
9A	Silver fir beetle	Silver fir, true fir
9B	Silver fir beetle	Ponderosa pine
9C	Silver fir beetle	Port Orford cedar root disease
9D	Rust	Port Orford cedar
9E	Water damage	All species

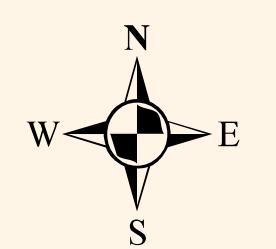
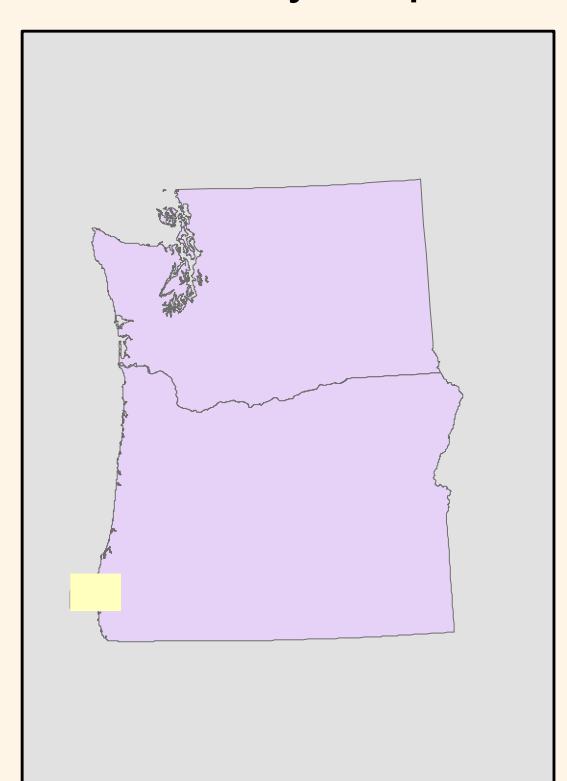
Other Damaging Agents

Code	Damaging Agent	Primary Host
AB	Balsam woolly adelgid	True fir, Douglas-fir
AM	Cambodius spruce psyllid	Leptolepidus
BR	Blister rust	Western white pine
CC	Cypress gall canker	True fir
DE	Dwarf mistletoe	Ponderosa pine
DH	Dying hemlock	Hemlock
FE	Fir engraver	True fir
GR	Gypsy moth	All species
HA	Hail	Ponderosa pine
HD	Hardwood decline	All hardwoods
HN	Amur hornbeam	Amur hornbeam
OUT	No damage detected	Ponderosa pine
PA	Pine beetle infestation	Port Orford cedar
PR	Leaf rust in poplars	Poplars
PS	Port Orford cedar root disease	All species
SLK	Side knot	All species
UNK	Unknown mortality	Western white pine
VLT	Verticillium wilt	All species
WIND	Wind damage	Wind-thrown
WTR	Water damage	Water damage

Draft USGS 100K Quad: Port Orford 42124-E1 Aerial Insect and Disease Survey

Mapscale: 1:100,000
Friday, August 15, 2008

Vicinity Map



Coding Convention:
The cause of damage is described by a code example: BS=western spruce budworm
and is followed by a modifier. A modifier can be either: intensity of damage (height),
Modifying Agent, (height), or number of trees killed (example: 4-20 = 20 trees killed
by Douglas-fir beetle); or number of trees/acre killed (example: 4-4A = 4 trees/acre killed
by fir engraver). There can be up to three damaging agent-modifier combinations
recorded for each polygon. Each agent-modifier combination is separated by a ":"
(example: BS-MI1-204-4A). The color of the polygon is dictated by the first agent recorded.
Map base data created with TOPO!, Copyright 2001, National Geographic. All rights Reserved.

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.



For More Information and Inquiries:
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http://www.dnr.wa.gov/htdocs/rp/forhealth/forest_health@wadrn.gov

Oregon:
http://egov.oregon.gov/DFO/PRIVATE_FORESTS/fth.shtml
Information@cdf.state.or.us



USDA Forest Service:
<http://www.fs.fed.us/r6/nifid/as/kspengel@fs.fed.us>

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.