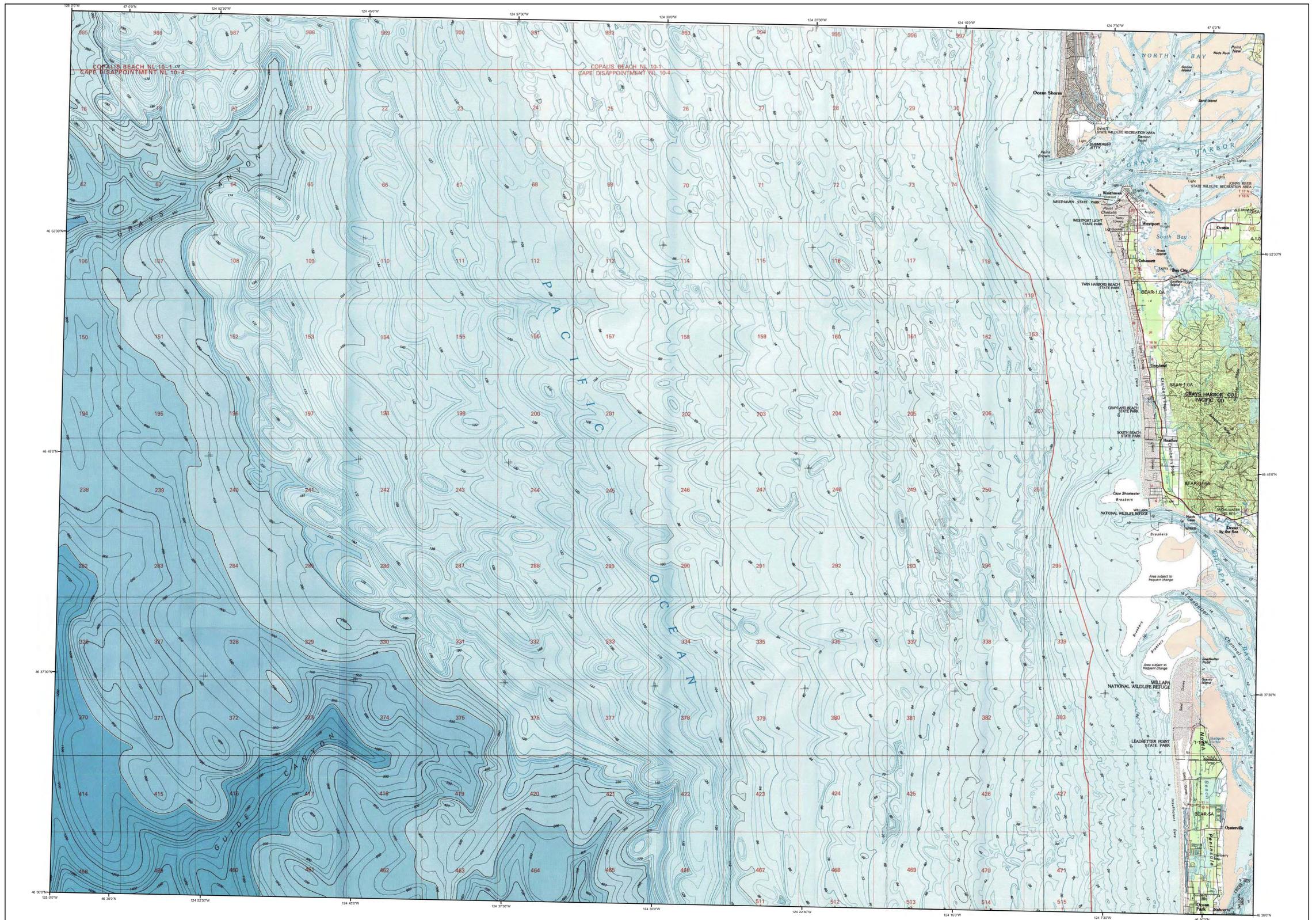


2010 Aerial Insect and Disease Survey Westport - USGS 100K Quad A147124; 1E



Defoliators		Mortality Agents	
Code	Damaging Agent	Code	Damaging Agent
AS	Spruce aphid	1	Douglas-fir beetle
BB	Western larchheaded budworm	2	Douglas-fir engraver
BM	Modoc budworm	3	Spruce beetle
BP	Sugar pine tortrix	4	Fire engraver
BS	Western spruce budworm	5	Western balsam bark beetle
BY	Bynum's blight/leptodermella	6J	Mountain pine beetle
CH	Larch casebearer	6K	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 leaf scale	6W	Mountain pine beetle
MD	Douglas-fir budmoth	7	Isis spp.
ML	Larch budmoth	8	Western pine beetle
MN	Douglas-fir needle midge	88	Western pine beetle
MS	Spruce budmoth	9	Beet damage
ND	Needle miner	BEAR	Flattened wood borer
NJ	Needle miner	LW	Black stain root disease
NK	Needle miner	PL	Pure larch cedar root disease
NL	Needle miner	RD	Root disease
NM	Needle miner	WATR	Water damage
NP	Needle miner		
NS	Needle miner		
NT	Needle miner		
NW	Needle miner		
CL	Western oak looper	AB	Balsam woolly adelgid
PI	Pine bark beetle	AC	Cottony scale girdler
PC	Pine needle cast	AM	Leaf discoloration
PH	Phantom hemlock looper	BM	Blister rust
PM	Pandora moth	CC	Cystospora canker
PN	Pine needlehead miner	DI	Dying hemlock
PS	Pine needle scale	FI	Fire
RC	Needle cast	GP	Gray pine midge
S	Spider mite	HAL	Hemlock decline
SA	Sawfly	HD	Hemlock dieback
SD	Sawfly	NFN	Areas not flown - roan host
SH	Sawfly	OUT	No damage detected
SK	Sawfly	PR	Pacific moshone decline
SL	Sawfly	RND	Rust leaf in poplars
SM	Satin moth	RS	Rust
SN	Swiss needle cast	SLD	Slake
SP	Spruce sawfly	UNL	Unknown defoliation
SW	Sawfly	UNKM	Unknown mortality
TA	Tent caterpillar, aspen	WATR	Water
TC	Tent caterpillar, other	WIND	Wind-thrown
TM	Douglas-fir tussock moth	WTR	Wet damage
TS	Tent caterpillar, aspen		

USGS 100K Quad - Westport; A147124; 1E
2010 Aerial Insect and Disease Detection Survey
Mapscale: 1:100,000
Date: January 25, 2011

Legend

- Defoliating Agents
- Mortality Agents
- Other Damage
- WaDNR Managed Lands

The map 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/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 Division
 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
 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/monitoring/ads/accuracy.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."