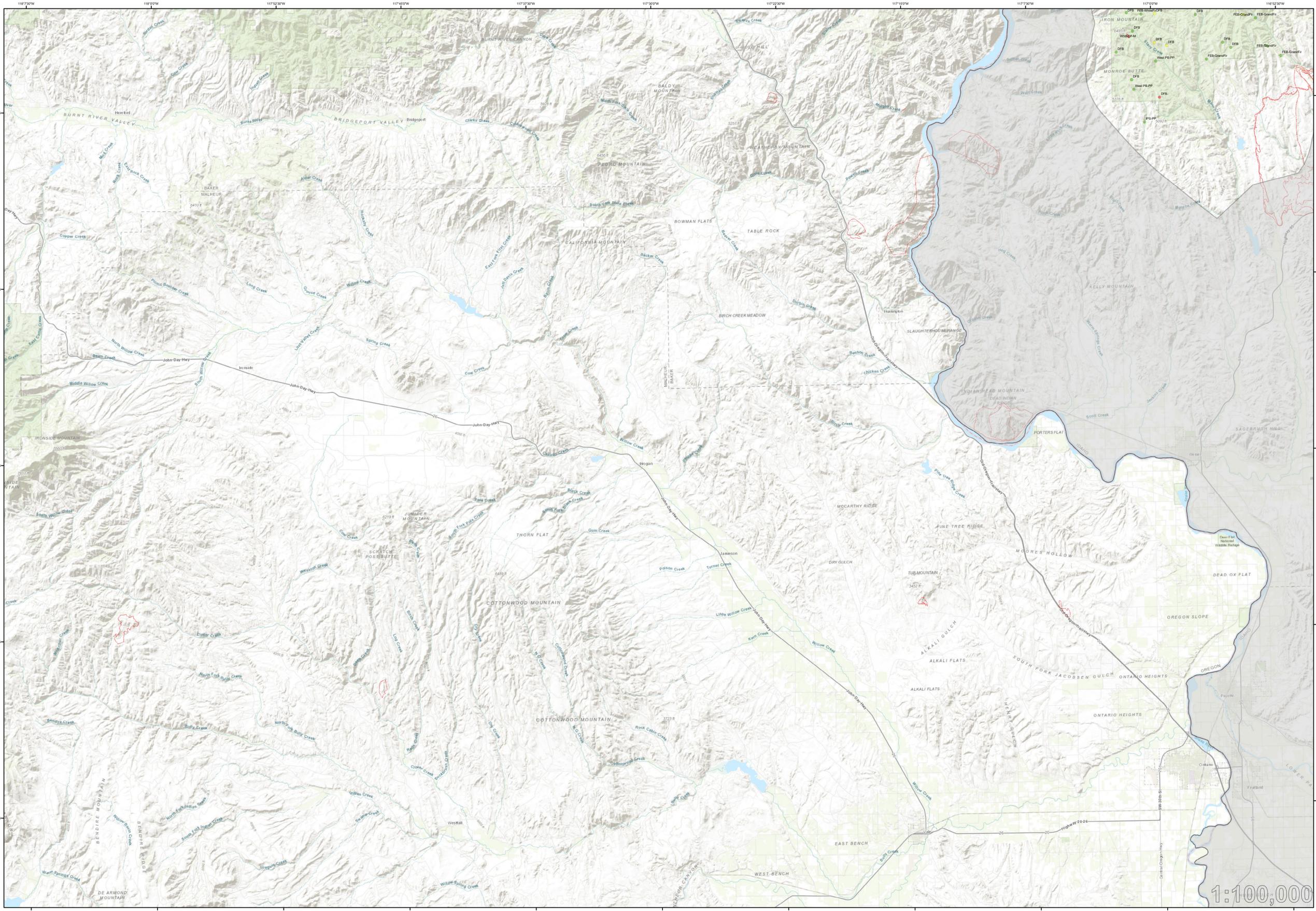


2018 Aerial Insect and Disease Survey Brogan, Oregon



Legend

Damage Points
Number of Trees

- 1 - 5
- 6 - 30
- > 30

Damage Polygons
Percent Affected

- Light (1-10%)
- Moderate (11-50%)
- Severe (>50%)
- Not flown
- Fire Perimeters (2015 - 2017)

CODING SYSTEM
Codes have two parts: the first represents the causal agent and the second represents the host. If needed, the two-part code is followed by an 'M' or 'H' to indicate severity of the activity. Data is color coded to represent the intensity of activity as seen in the legend.

Examples:
MPB-LPP represents mountain pine beetle in Lodgepole pine.
WSB-DF/SAP-H represents western spruce budworm infestation in subalpine fir/Douglas-fir mix with >75% of leaves defoliated.

Causal Agent Codes	Host Codes
Avalanch-All	Avalanche
Avall	Avalanche
CR	Corn
Flood	Flooding-high water
FRDST	Frost (ASP)
Ind St-All	Mud land slide
Aspen	Aspen
ASP Decline	Aspen Decline
ASP Dieback	Aspen Dieback
Mars, Mars Bl	Mars Dieback
MSB	Mars Blight
PP	Ponderosa Pine
DFB	Douglas-fir beetle
ESB	Engelmann Spruce beetle
FEB	Fir engraver beetle
IPS	Pine engraver beetle
Jeffrey PB	Jeffrey pine beetle
MSP	Mountain pine beetle
WBBB	Western balsam bark beetle (SAF)
West PB	Western pine beetle (PP)
77Def1	Unknown defoliator
BWA	Balsam woolly adelgid
Crowd-LB	Cottonwood Leaf Beetle
DTM	Douglas fir tussock moth
FTC	Fir Tent caterpillar (ASP)
Satin Moth	Satin moth
Scale	Pruned needle scale
Budworm	Western spruce budworm
WSB	Western spruce budworm
Disease	
77Dsc	Unknown foliage or Shoot Disease
77Mrt	Unknown mortality
77Mnt	Unknown mortality
BKCN	Bark Skin Root Disease
DF-Nd1 Cast	Needle cast
FBR	Fir broom rust (SAF)
Lopla	Lophodermium needle cast (LPP)
SAP-Mrt Cmpx	SAP Mortality Complex
WPR	White pine blister rust
NdHt	Needle blight (CON)
ASP	Aspen
Bacon	Rocky Mtn bristlecone pine
Blackthornwood	Black cottonwood
CON	Unknown conifer
DF	Douglas fir
ES	Engelmann spruce
HW	Unknown hardwood
LUM	Lumber pine
LP, LPP	Lodgepole pine
PNW, Nvpy	Parish pine
PP	Ponderosa Pine
RF	Red fir
SAF	Subalpine fir
Spr	Sugar pine
PY-UT	Utah piñon, common or two-needle piñon
WBP	Whitebark pine
WSP	Western white pine
Miscellaneous	
H	Defoliation - Heavy (75% of leaves defoliated)
M	Defoliation - Moderate (50-75% of leaves defoliated)
TK, TK	Top kill
FLAG	Flagging
MORT	Mortality
ALL	All tree species



HOW THE AERIAL SURVEYS ARE CONDUCTED

Data represented on this map are based on trees visibly affected by forest insects, diseases and abiotic factors that are detected and recorded by observers during aerial survey flights. These flights are conducted by a joint partnership between the USDA Forest Service and state cooperators.

Observers have just a few seconds to recognize characteristic signatures of healthy and damaged trees of different species, correctly diagnose damage causal agents, estimate the intensity or extent of damage, and precisely record information on a digital sketch mapping platform. Air turbulence, cloud shadow, haze, smoke, and observer experience can affect the quality of the survey. These sketchmaps and the resultant data summaries provide an estimate of conditions on the ground, and may differ from estimates derived by other methods.

Annual aerial surveys provide important information on the current status of detected causal agents and can be used to determine trends in damage levels over time by comparing previous and current survey data over large areas.

Map Created: 2/14/2019
Projection: UTM NAD83 Zone 11T
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DISCLAIMER

The digital map layer upon which the insect and disease data are presented vary in both source and scale, therefore, accuracy is not guaranteed.

The insect and disease data should be used only as an indicator of insect and disease activity, and should be ground-truthed for actual location and causal agent. Polygons indicate locations of tree mortality, defoliation, and/or other damage. Intensity of damage is variable, and not all trees and areas indicated are dead or damaged. The joint cooperators reserve the right to correct, modify, update, or replace the data as necessary. Using this data for purposes other than those for which it was intended may yield inaccurate or misleading results.