



2018 Forest Health Report

**Oregon Board of Forestry – Public Meeting
September 4th, 2019**

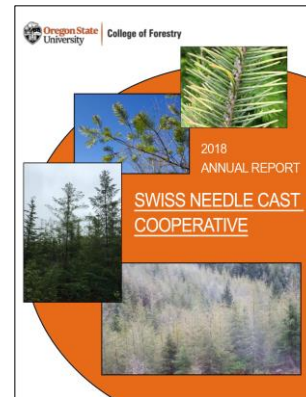
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ODF's Forest Health Unit



- Consists of:
 - Manager
 - Pathologist
 - Entomologist
 - Invasive Species Specialist
 - Survey Specialist
- Provides services statewide:
 - Technical assistance
 - Monitoring and detection
 - Research projects
 - Cost-share funding
 - Eradication and mitigation



Aerial Detection Surveys

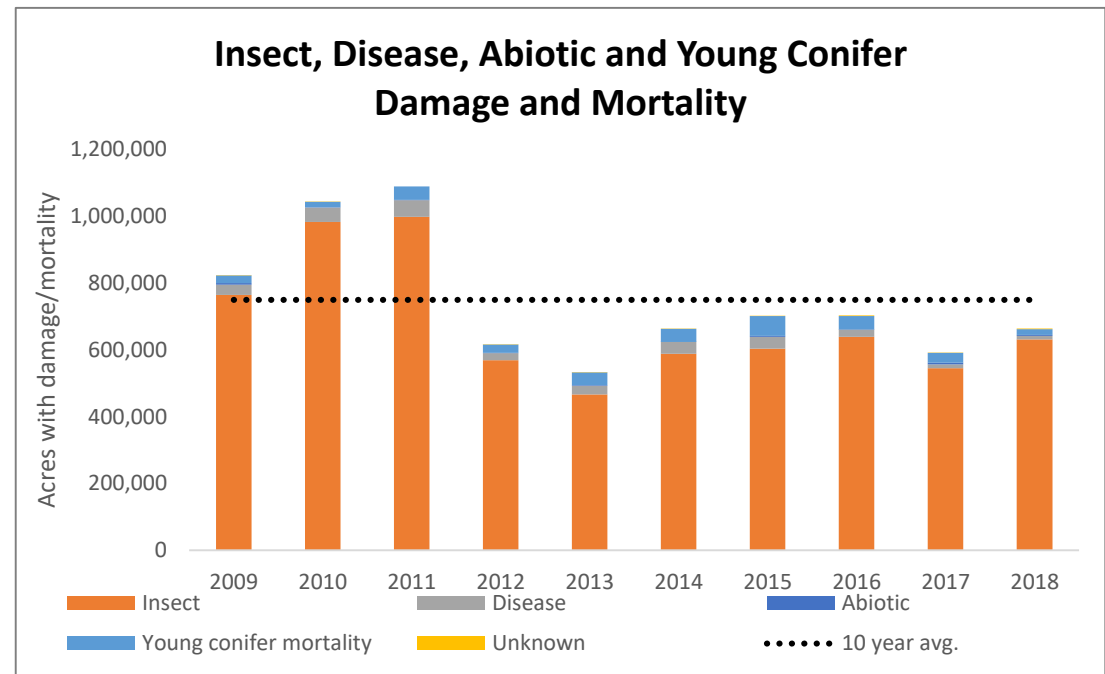


- Broad scale issue detection and trend monitoring
- Cooperative with the USDA Forest Service
- Annual since 1947
- Over 35 million acres surveyed in 2018
- Provide data input into:
 - Risk models
 - Planning efforts
 - Prioritization (e.g. Forest Action Plan)
 - Direction of Federal funds nationwide

Aerial Detection Surveys



- 2018 Results:
 - Approximately 28 million acres of general survey
 - Over 675,000 acres with damage (10-year average ~750,000)



- Primarily driven by insect damage
- Does not include acreage for Swiss needle cast or sudden oak death

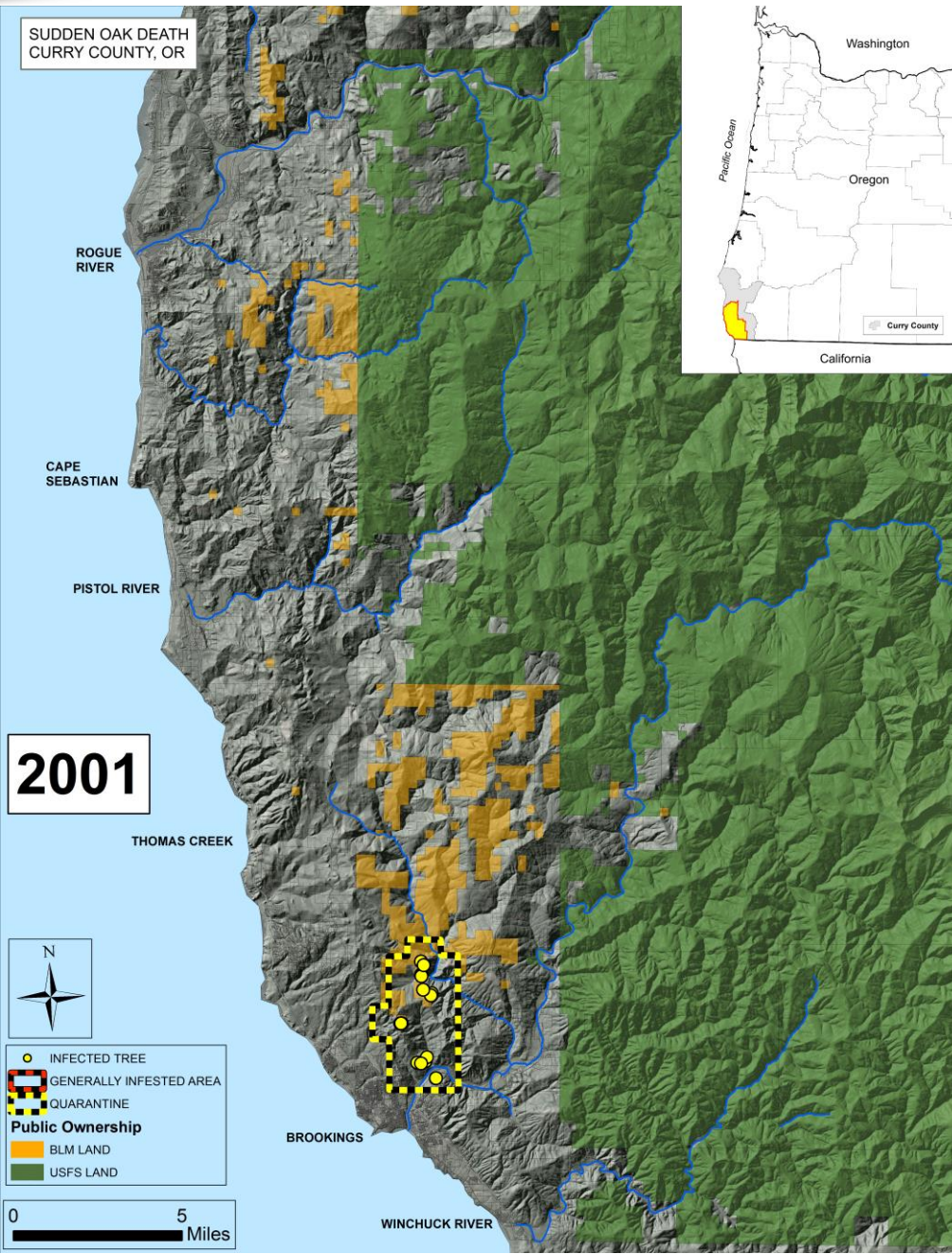


Sudden Oak Death in Oregon

Updates

- Slow-the-Spread continues
- SOD Task Force formed 2016
- Economic analysis completed in 2018
- ODF/OSU Citizen Science Project
- High Resolution Imagery
- Participatory Disease Modeling

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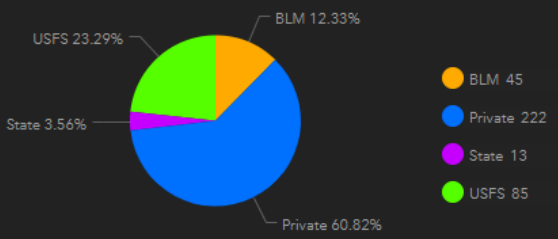
OR Sudden Oak Death Dashboard

2019 SOD Samples Taken

365

Last update: an hour ago

2019 SOD Samples by Ownership



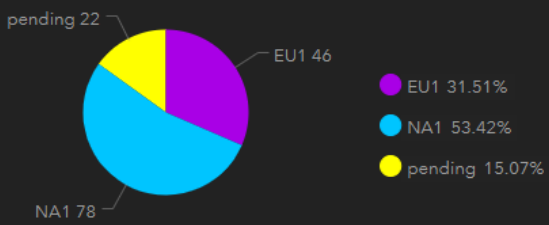
Last update: an hour ago

2019 SOD Positive Trees

146

Last update: an hour ago

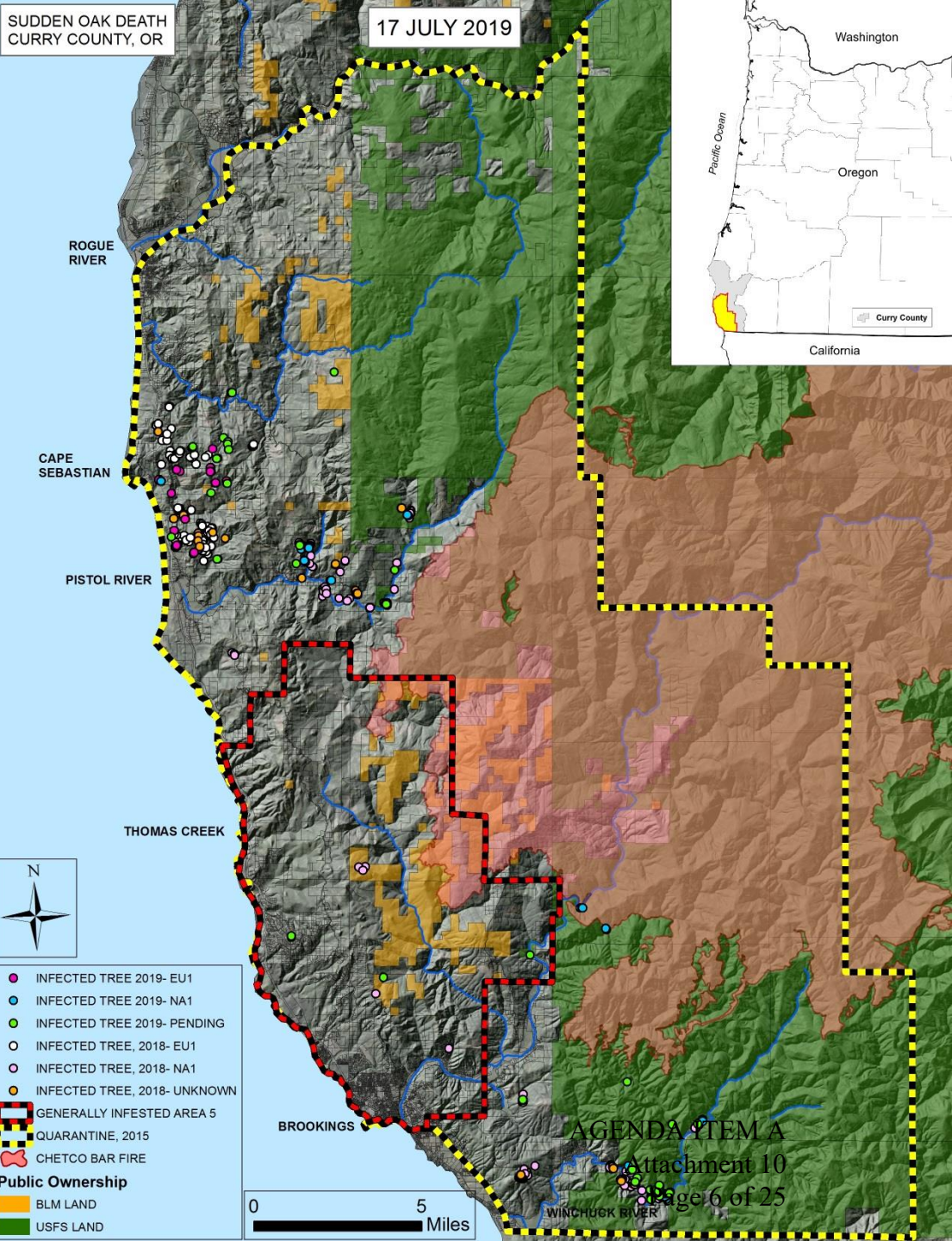
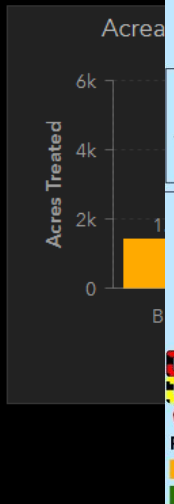
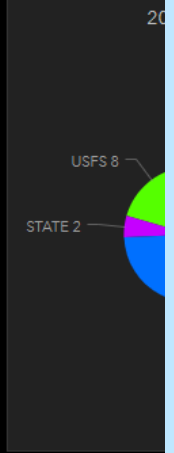
Lineage Results for 2019 SOD Positive Trees



Last update: an hour ago

SUDDEN OAK DEATH
CURRY COUNTY, OR

17 JULY 2019



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SOD Economic Impact Assessment

- Examined timber-based economic impacts:
 - From discovery of SOD in 2001 to 2018
 - Future economic impacts: 2019 through 2038.
 - Coos, Curry, Douglas, and Josephine County
 - Three scenarios
- Examined non-timber impacts:
 - Property values
 - Ecosystem Services
 - Cultural values
 - Wildfire risk

SOD Economic Impact Assessment

Timber Impacts

- Current

Funding SOD at \$30 million over the next 20 years could offset:

- **1,200 job losses by 2028**
- **\$580 million in wages from 2028 to 2038**

- Decline property value



Sudden Oak Death Economic Impact Assessment



Non-timber Impacts

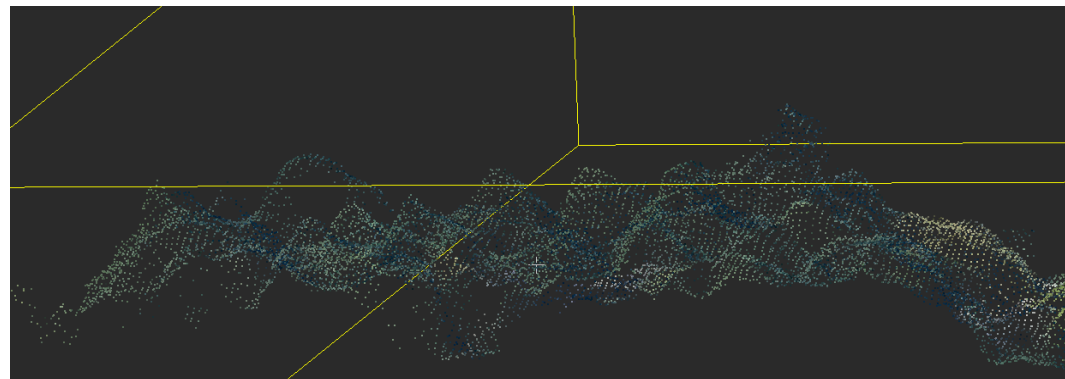
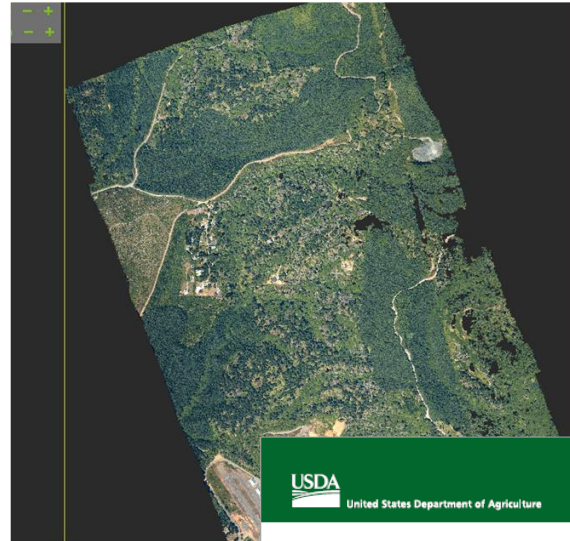
- Impacts to cultural practices
- Reduced rural residential property value
- Loss of real estate transaction revenues
- Decline in recreation and tourism
- Potential increased wildfire risk



GTAC Project- Mapping Sudden Oak Death

Objectives

- Utilize existing aerial imagery to:
 - Create 3D models
 - Detect dead tanoak
 - Refine tanoak distribution maps





Tangible Landscape- Modeling spread of SOD in Oregon

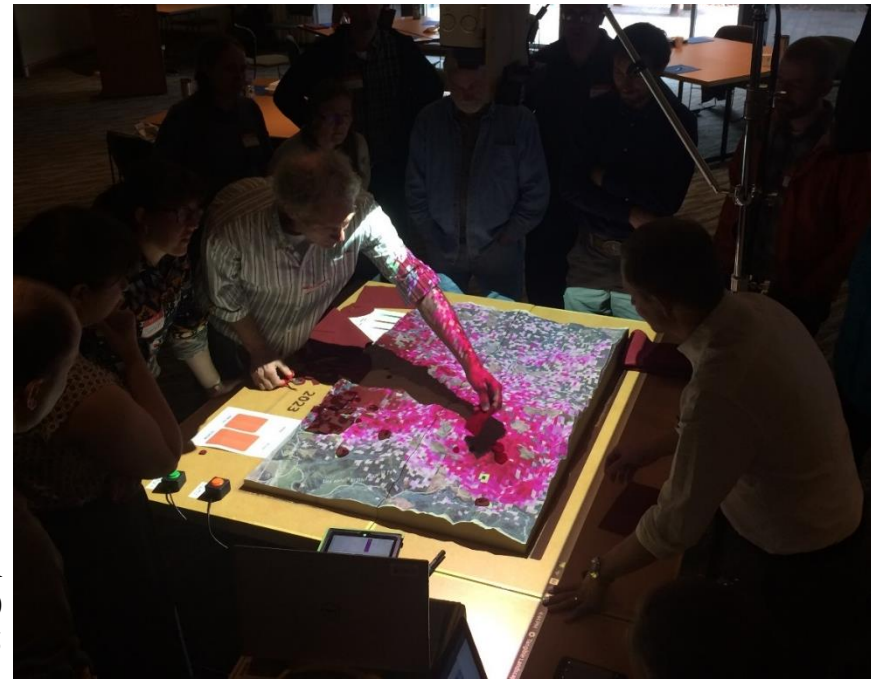
- PhD Project of Devon Gaydos, NCSU
- ODF hosted a participatory workshop of the Tangible Landscape Model
- Workshop goals were to:
 - Assess how participants interact with the model
 - Collect stakeholder input to refine model



NEWS RELEASE 19-MAY-2019

Can a hands-on model help forest stakeholders fight tree disease?

NORTH CAROLINA STATE UNIVERSITY



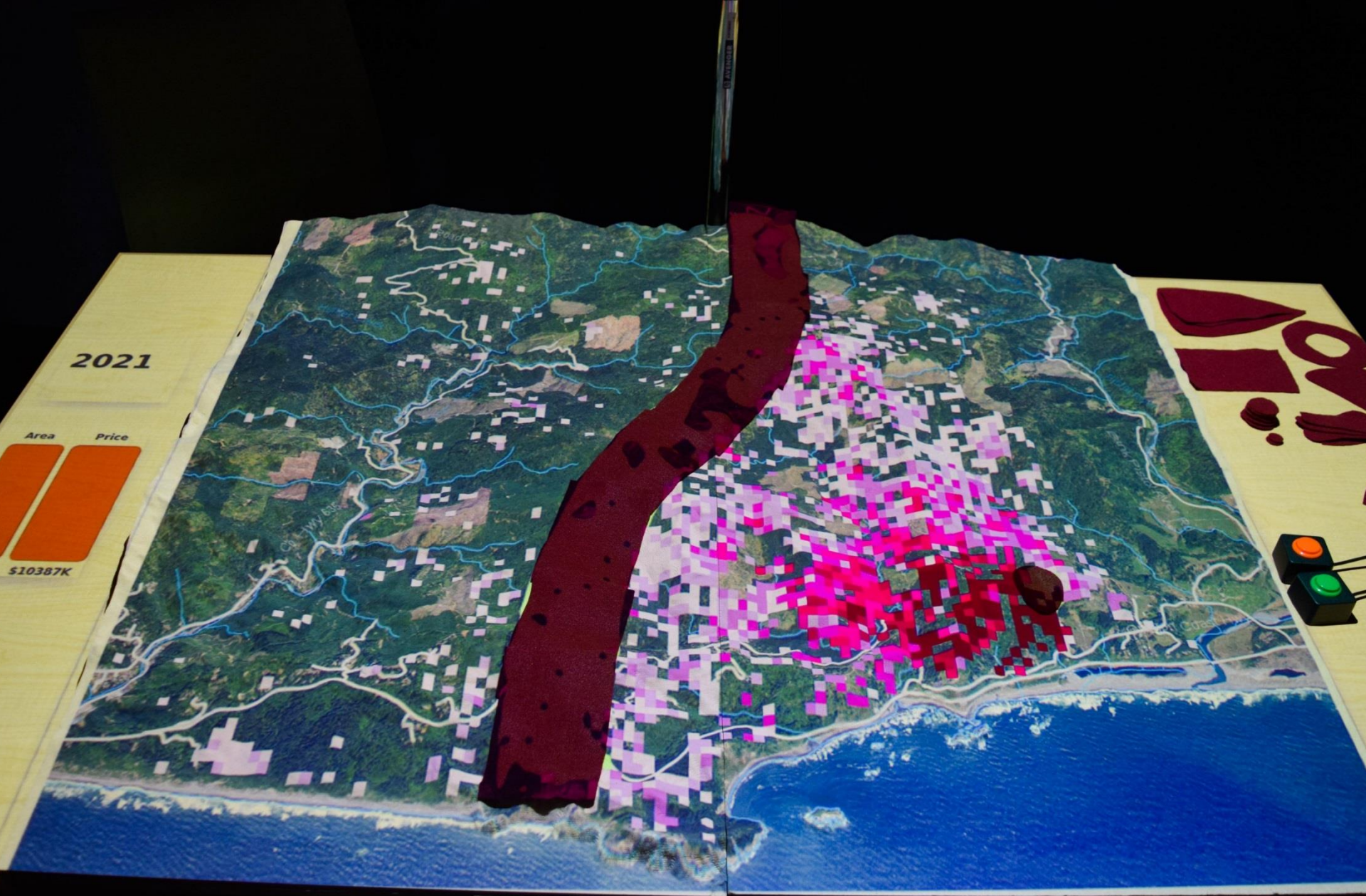
Tangible Landscapes



WH

- A
- p
- F
-
-
-





2021

Area

Price



\$10387K



Tangible Landscape- Modeling spread of SOD in Oregon

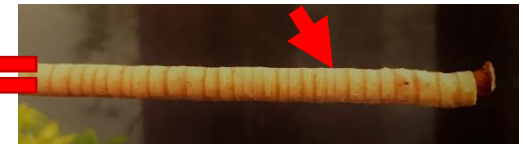
- 12 participants from ODF, USFS, and OSU
- Participants were surveyed before and after interacting with TL model
- Since then:
 - Refinement of disease spread model
 - Follow up workshop planned for 9/11





Bark Beetle Mitigation

- 50/50 cost-share program
- Stretching the \$
 - Spend within 2 years
 - Combine with other grants
 - Multiple landowners = 'beetle block'
 - Sustainability planning (e.g., drought)
- 212 acres in 218 to 15 ownerships





2019 Gypsy Moth Eradication - Corvallis

- 500+ host species, including DF
- Tools for detection, eradication
- **ODA-IPPM is lead agency**
- 4 GM detected in 2017
- 27 GM detected in 2018
- 46-acre ground treatment
- Treatments May 6th and 20th
- ODF provided technical and local support to the project





Invasive woodborer survey

USFS funded project:

“Improving Early Detection of Exotic Invasive Wood Boring Insects at High Risk Areas in Oregon and Washington”

Field work:

2016-2018

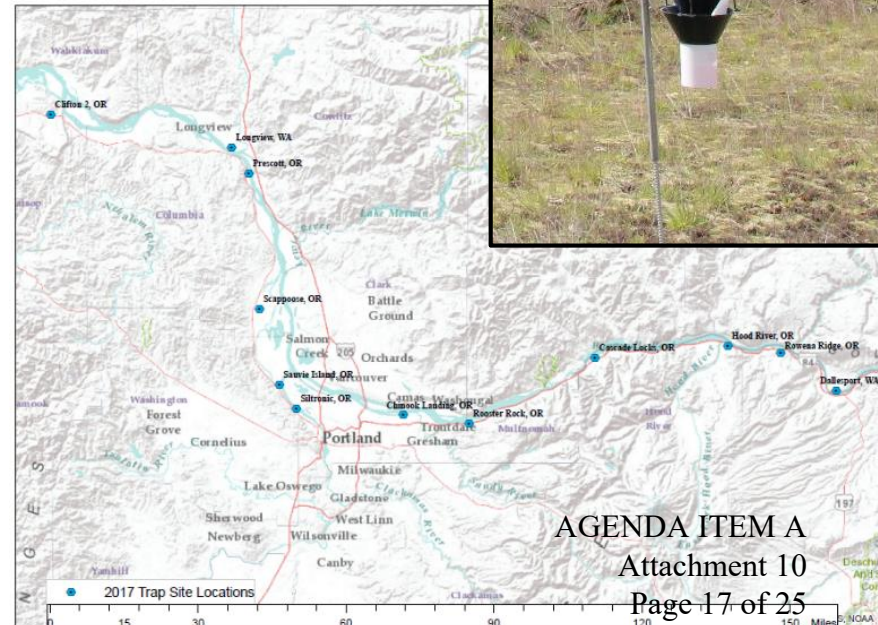
165 mile transect along
Columbia River

Collaborators:

ODA

USFS

WADNR



Invasive woodborer survey



Cyclorhipidion pelliculosum

First record in W. North America



Xyleborus monographus

First record in North America



Chrysobothris rugosiceps

First record on West Coast



Trypodendron domesticum

Native to Europe

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Oregon Forest Pest Detectors and the Oregon Invasive Species Council Hotline:



OSU

Calendar Catalog Library Maps Online Services Make a Gift

Search this site

Search all of OSU

Oregon Invasive Species Online Hotline

Learn Search Reports Report Now My Account

or call 1-866-INVADER

Have you seen something suspicious in your backyard or neighborhood? Are you having trouble identifying something you've found? Report potential invasive species you've found to the Online Hotline. Your submission will provide vital early detection information to the experts working to stop the next invasion before it starts!

Report Now Search Reports About the Hotline ↓

Google

Portland State UNIVERSITY

WIN WESTERN INVASIVES NETWORK

OISC OREGON INVASIVE SPECIES COUNCIL

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Help stop the spread of invasive species in Oregon



OFPD = new exotic species detection!

- Two OFPD graduates noticed signs/symptoms
- New exotic species- *Agrilus cyanescens*
- ODA conducting risk analysis
- Other agencies cooperating:
 - OSU
 - City of Portland
 - Tualatin SWCD





Exotic Invasive Plants- Orange Hawkweed

Class A noxious weed

- Landowner alerted ODF
- ODF conducted surveys and treatments
- ODF continuing to monitor
 - No detection post treatment



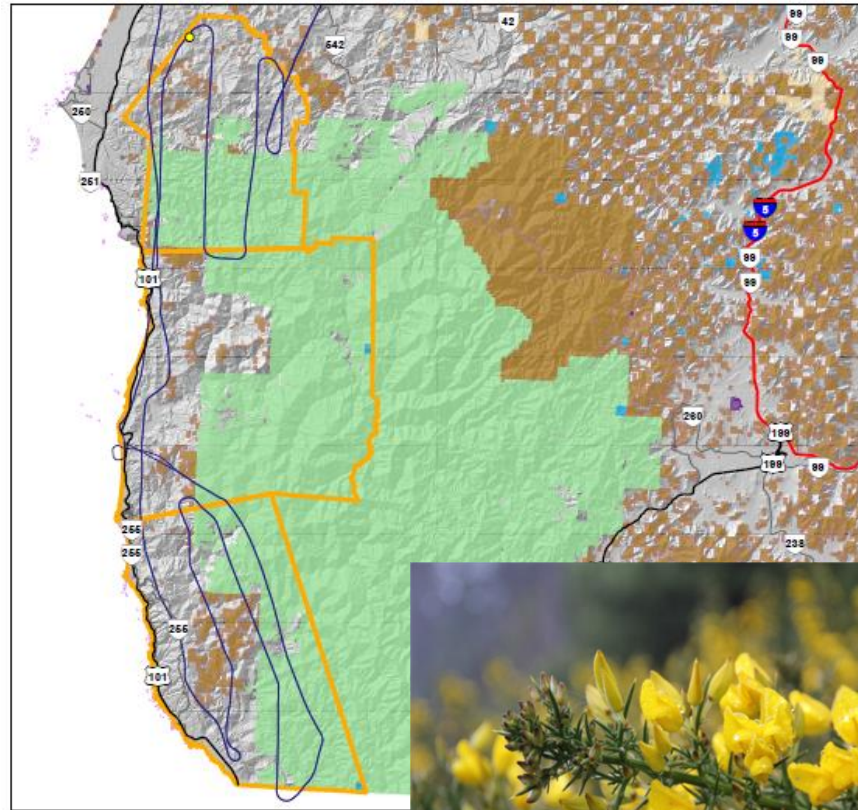
Charley Moyer, former ODF Reforestation forester
AGENDA ITEM A



Exotic Invasive Plants- Gorse (*Ulex europaeus*)

Curry County Gorse Aerial Detection Survey Conducted by Oregon Department of Forestry, 2019

- Class B noxious weed
- Curry County requested ODF assistance for aerial detection surveys
- ODF surveyed approx. 300,000 acres in spring of 2019
- <\$5,000 cost to county



EAB Plan for Oregon



- Introduction and background
- Define roles of stakeholders
- Readiness
 - Risk Assessment, Detection
- Response
 - Communication plan, quarantine, restoration
- Funding
- Appendices
 - Sample press release, IPM fact sheet



Final plan was released late Spring 2018 AGENDA ITEM A

<http://www.OregonEAB.info/>

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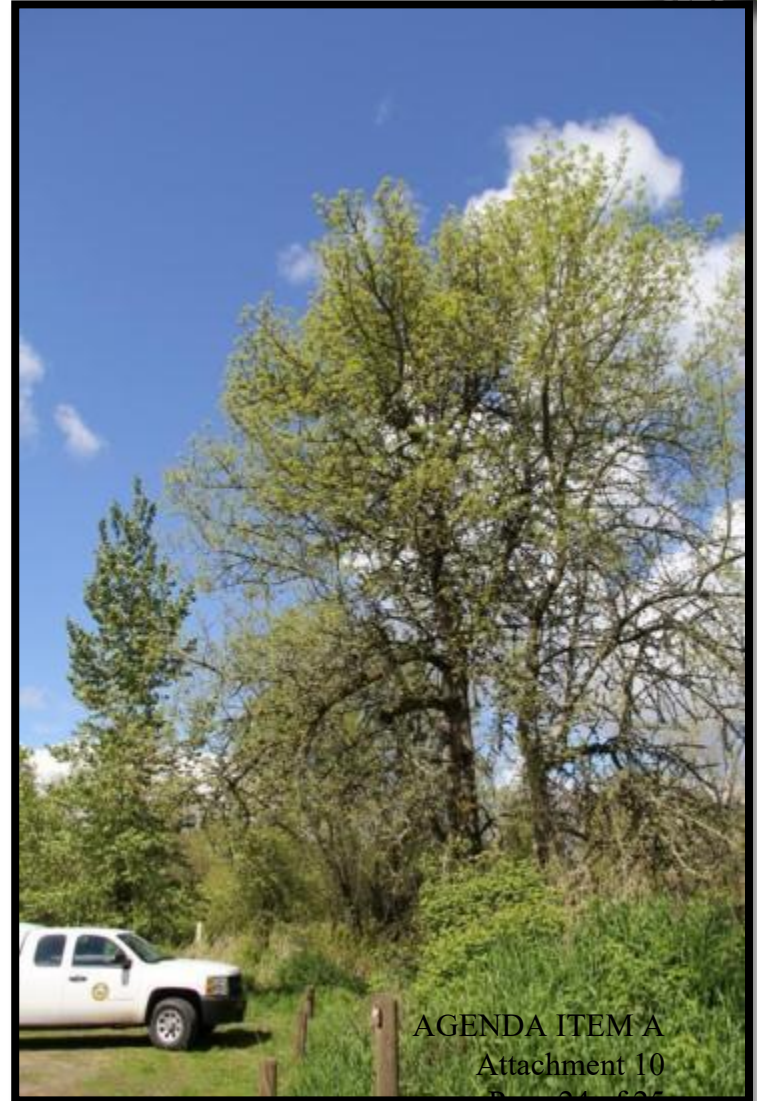
Oregon Ash



- In response to the EAB threat, ODF is working to collect and preserve Oregon ash seeds :
 - Preserve the species once EAB arrives
 - Support resistance development
 - “getting a step ahead”



Oregon Ash – a widespread and common tree in Oregon, California, and Washington.



Questions?



More information and data provided by ODF Forest Health:



<http://tinyurl.com/odf-foresthealth>

Oregon Department of Forestry / Forest Benefits / Forest Health

Forest Health

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Recreation
Forest Benefits
About Oregon's Forests
Urban Forests
Forest Health
Tree Care
High Value Conservation Areas
Climate Change
Biomass
Inmate Rehabilitation
Wildlife Corner

Forest Health Fly Over

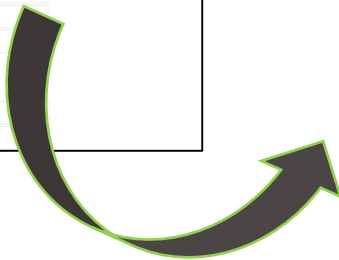
Resources
Forest Health Highlights - Joint product of ODF and the USFS Region 6 Oregon Forest Pest Detector
Forest Insect & Disease Leaflets (FIDLs)
Grants & Incentives

Partners
Oregon Invasive Species Council

Contact
Forest Health Program
Private Forests Division
2000 State Street
Salem, OR 97310
Phone: 503-945-7207
Email: [link]

Factsheets & information
Insects
Diseases
Invasives
Other

Maps & data
Statewide Insect & Disease Aerial Surveys
Swiss Needle Cast



Douglas-Fir Beetle Forest Health Fact Sheet

Wests
Major: 2009-2010 Douglas-Fir Beetle
Minor: Oregon western spruce budworm

Blights
ODF has the monitoring program for three tree bark beetles: the Douglas-Fir Bark Beetle (DFBB), the Western Spruce Budworm (WSB), and the Western Pine Beetle (WPB). The Douglas-Fir Bark Beetle (DFBB) is the most common and most damaging of the three. It is a bark beetle that attacks Douglas-fir trees. The Douglas-Fir Bark Beetle (DFBB) is a bark beetle that attacks Douglas-fir trees. The Douglas-Fir Bark Beetle (DFBB) is a bark beetle that attacks Douglas-fir trees.

Damage
Douglas-fir bark beetles (DFBB) attack Douglas-fir trees by boring into the bark and laying eggs. The eggs hatch and the larvae feed on the cambium of the tree, eventually killing the tree. The Douglas-Fir Bark Beetle (DFBB) is a bark beetle that attacks Douglas-fir trees.

Forest Health Highlights in Oregon - 2016

Oregon Department of Forestry
Forest Health Program
Pacific Northwest Region
Forest Health Protection
for the greater good