

2018
California Forest
Pest Conditions



**2018 CALIFORNIA FOREST
PEST CONDITIONS
REPORT**

**BOARD OF FORESTRY
AND FIRE PROTECTION**

APRIL 10, 2019

TOM SMITH

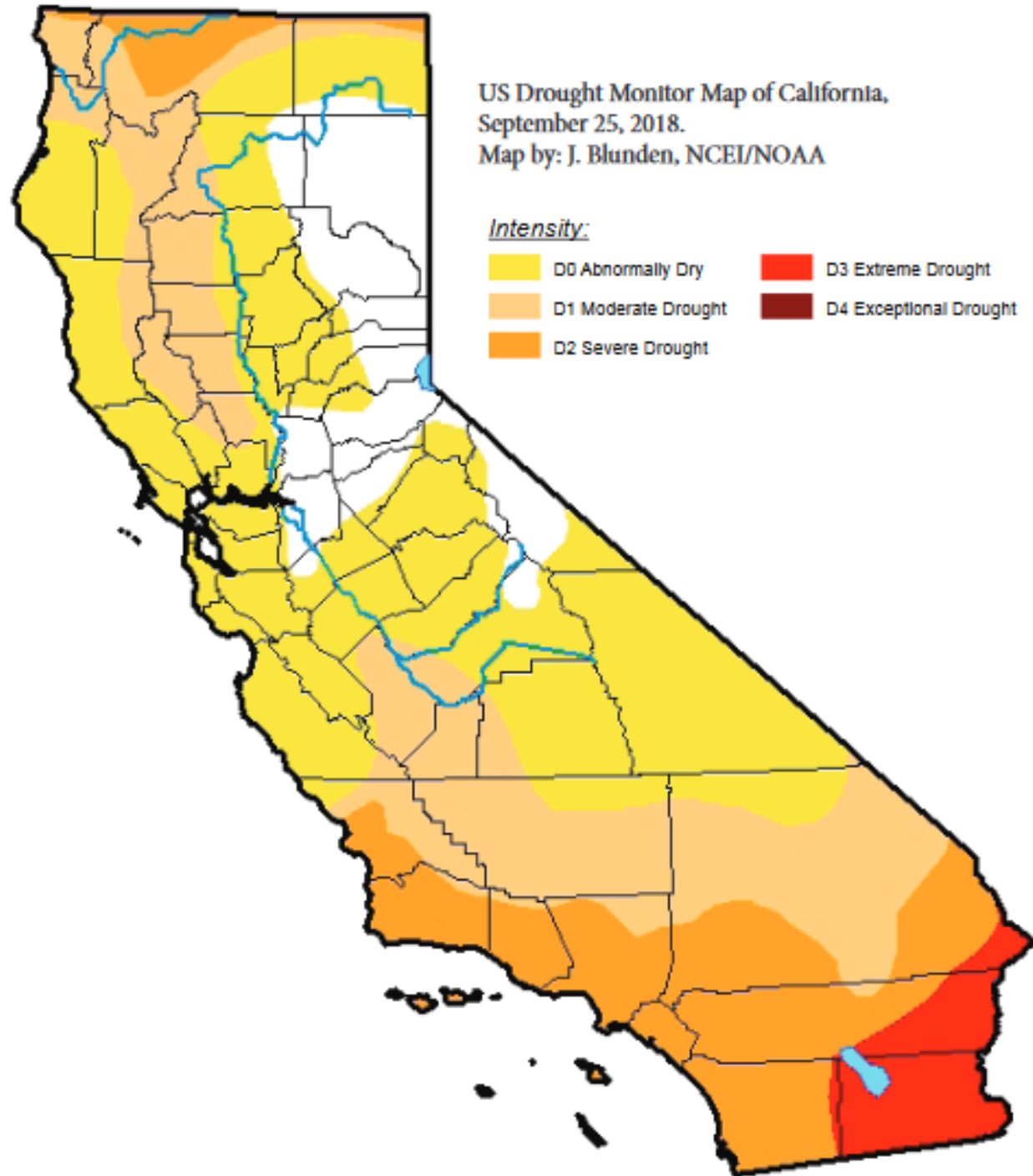
**FOREST PEST MANAGEMENT
SPECIALIST**

CAL FIRE



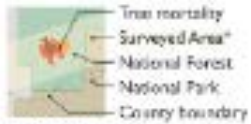
Drought and Weather

- October 2017 – April 2018 Water Year Was At 75% of Average (Compared To 170% In The 2017 Rainfall Year)
- This Was The Third Warmest Year On Record (Since 1895)



FOREST HEALTH PROTECTION AERIAL DETECTION MONITORING

2018 SURVEY



* The map shows tree mortality only within the surveyed area.

Percent Trees Affected



Note: Only reports that have occurred in 2018. Loss of tree mortality are for visual representation only.

2015 – 2018 Tree Mortality



Aerial Survey

- 37 Million Acres Surveyed
- Mortality Recorded On 2 Million Acres
- 18 Million Dead Trees Found
- 75% Of Dead Trees Recorded Were Red And White Firs At Higher Elevations
- Western Pine Beetle Mortality Down To ~950,000 Trees (Down From ~4 Million In 2017)
- Tanoak Mortality Due To Sudden Oak Death Increased To ~1.6 Million Trees (Up From ~214,000 In 2017)

INSECTS

Red And
White Fir
Mortality



Fir Engraver Beetle – *Scolytus ventralis*



More Scattered Than The Western Pine Bark Beetle Mortality Had Been
Mostly At Higher Elevations
Often Related To Root Disease Pockets

Western Pine Bark Beetle – *Dendroctonus brevicomis*



- Ponderosa Pine Mortality Was Significantly Down Compared To Previous Years
- Returning To Endemic Levels

Goldspotted Oak Borer – *Agrilus auroguttatus*

- Removal Of Infested Trees Began In Green Valley In Los Angeles County
- New Infestations In Oak Glen In San Bernardino County
- Expansion Of All The Known Infestations



Invasive Shot Hole Borer/Fusarium Complexes



- Spreading Up Riparian Corridors Towards The Angeles National Forest
- Found In The Cleveland National Forest
- 50,000 Trees Infested In Orange County Parks
- Isolated Infestation In Santa Barbara County
- Spreading In Ventura County

DISEASES

Pitch Canker – *Fusarium circinatum*

- Moving Further North In Mendocino County
- Causing Mortality Of Bishop And Shore Pines On North Coast
- Widespread In Marin County

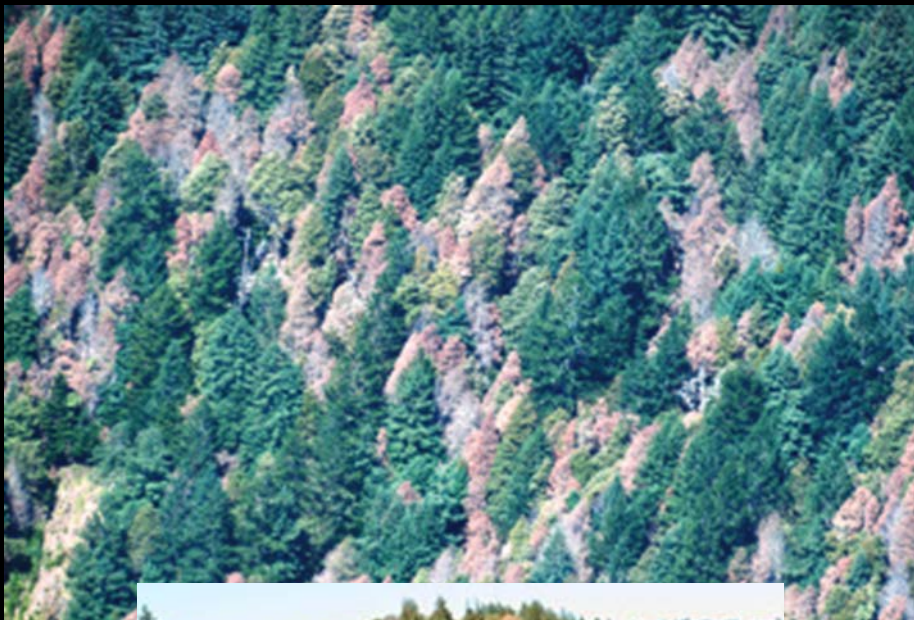


Port-Orford-Cedar Root Disease – *Phytophthora lateralis*

- Still A Problem In Some New Watersheds In Del Norte County
- Nearly All Port-Orford-Cedar Locations Now Have Some Level Of Infection
- Treatments And Testing Of Resistance Ongoing



Sudden Oak Death – *Phytophthora ramorum*



- New Outbreaks In Parts Of Alameda, Napa, Sonoma, Mendocino, Santa Cruz And Marin Counties
- Increased Infection And Mortality Compared To 2017
- Widespread Mortality Of Manzanita In Areas Without Bay Laurel Hosts
- New Stream Positive In Chadd Creek In Humboldt County
- New Hosts – Mostly Species Of Manzanita

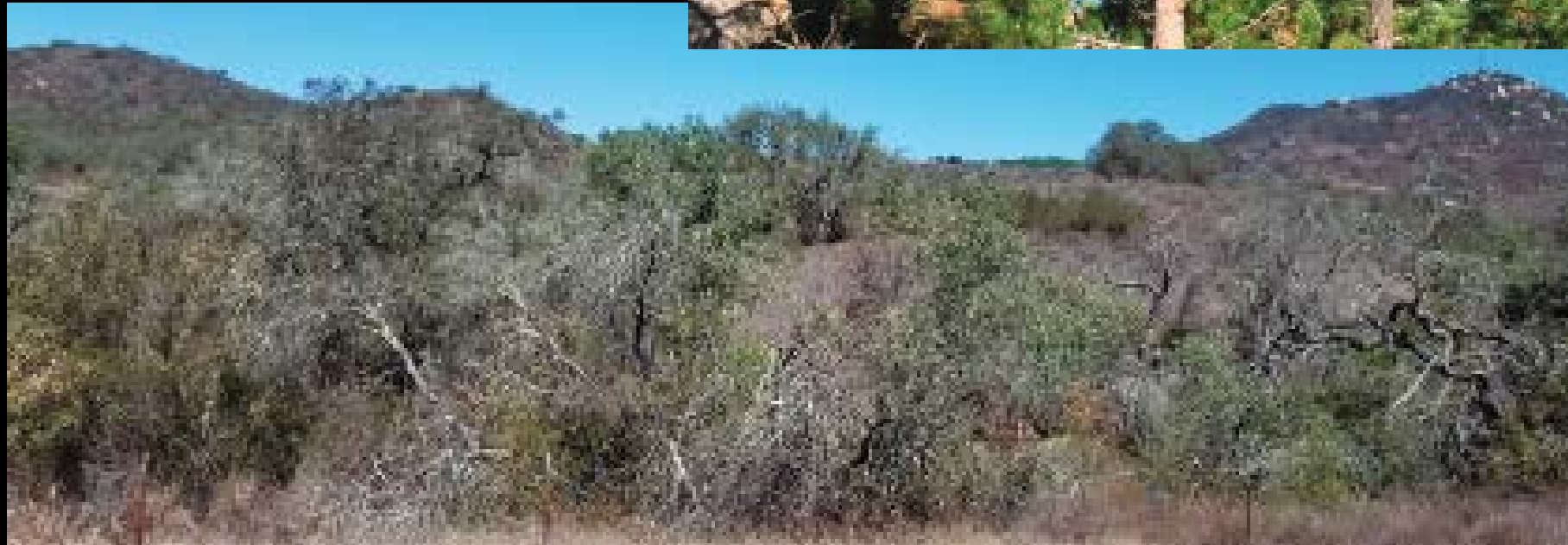
Alder Mortality – Cause Unknown

- Whole Stands Of Alders Dying From Topanga Canyon In The South To Point Reyes In The North And Eastward To The Sacramento Area
- Cause Unknown But Involves Bleeding Cankers Associated With The Alder Bark Beetle And Several Fungi Attacking The Sapwood



Drought Conditions

Trees Continue To Die
Even With The End Of
The Official Drought



Wildfires

An Estimated
1,671,203 Acres
Of California
Forests And
Woodlands
Burned In 2017
Leading To The
Death Or Fire
Injury Of All Tree
Species Within
Those Locations



Invasive Plants



- Insect Bio-controls Continue For Giant Arundo (Arundo Wasp and Arundo Armored Scale), Cape Ivy (Cape Ivy Shoot Tip Galling Wasp) and Scotch Broom (European Scotch Broom Gall Mote)
- New Invasive Plant Of Concern To Wildlands – Star Endive Or Endive Daisy (*Rhagadiolus stellatus*)

Questions?

