

Aerial Detection Survey, Pacific Southwest Region Northern Interior CA Preliminary Report, November 2021

Objective: The objective of this survey is to detect and record recently dead and damaged trees. Most of the mortality and damage is caused by insects and diseases.

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Methodology: Recent tree mortality was mapped using Digital Mobile Sketch Mapping systems. Surveyors drew polygons and annotated percent of forested area affected along with damage type, tree species, and causal agent. The five-class rating system is: Very Light (1-3%), Light (4 -10%), Moderate (11-30%), Severe (31-50%), and Very Severe (>50%).

Alternatively, small groups of trees were typically recorded as point data and have no acreage assigned until later processing. The North Interior had a high incidence of point data that is not tabulated in this report but is depicted on the map at an exaggerated scale.

Some areas that were not surveyed via aerial detection survey, were surveyed virtually using satellite imagery and those detections are included in this report.

Survey Highlights:

This report presents preliminary findings in and around the Klamath, Shasta-Trinity and Mendocino National Forests. Note: The Mendocino NF is usually in the Northwestern California report.

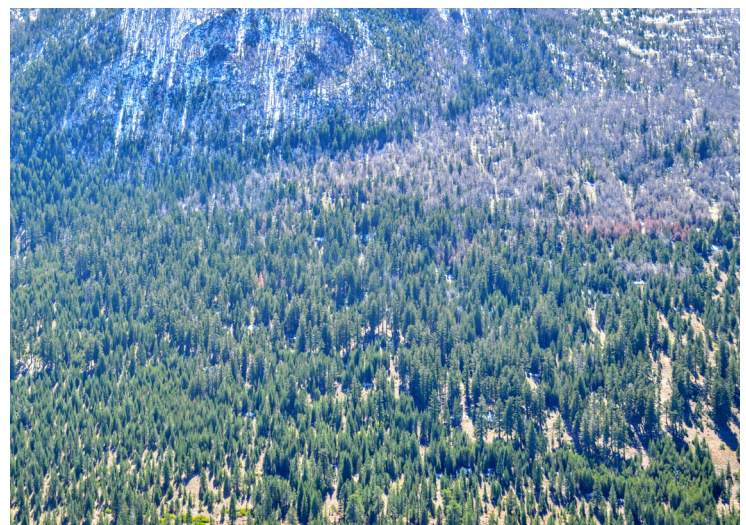
- White and California/Shasta red fir mortality was most common and detected across approximately 201,000 acres with 70% of the mortality rated as light or very light intensity. Some moderate to severe intensities of mortality were detected in the northern half of the reporting area.
- Ponderosa, knobcone and Jeffrey pine mortality was detected across 177,000 acres with approximately 68% categorized as light or very light intensity. Most of the higher-intensity and expansive mortality was recorded in eastern Shasta-Trinity and west central Mendocino NFs.
- Douglas-fir mortality was detected across approximately 2,800 acres with 65% mapped as either light or very light intensity, mostly located around and east of Lake Shasta.
- Gray pine mortality was detected across 3,300 acres, often at moderate and severe intensity. Mortality was typically captured as points which are not tabulated in this report, but larger areas of mortality were especially concentrated southwest of Shingletown and northwest of Willows.
- Whitebark pine mortality was again detected on the north/northeastern slopes of Mt. Shasta, mostly at severe intensity.
- Lodgepole pine mortality was recorded on approximately 1,600 acres and mostly categorized as light intensity. The largest area was located west of Arbuckle Mtn., Shasta-Trinity NF. Another significant area of moderate intensity was located northwest of Ball Mtn., Klamath NF.
- Oak mortality was detected across 900 acres and mostly located around and south of Redding. Much of the area was flown late in the season (October) when many oaks were in fall color, so additional mortality was likely missed.

Preliminary Summary (numbers may change)

Area surveyed: 7.3 million acres

Acres with mortality: 388,300 acres

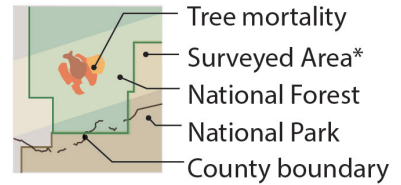
Tree Species Affected	Acres with Mortality
California red, Shasta red and white fir	201,000
Knobcone, Ponderosa and Jeffrey pine	177,000
Douglas-fir	2,800
Whitebark pine	400
Lodgepole pine	1,600
Gray or California foothill pine	3,300
Oak	900
Other Hardwood	900
Other Conifer	400
Total	388,300



Ongoing whitebark pine mortality on the North Slope of Mount Shasta. Notice the large amount of grey older mortality captured by ADS in previous years.

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2021 SURVEY NORTH INTERIOR



*This map depicts tree mortality only within the surveyed area.

Percent Trees Affected

- Very Light (1-3%)
- Light (4-10%)
- Moderate (11-29%)
- Severe (30-50%)
- Very Severe (>50%)

Number of Trees Affected (points)

- Very Light (1 tree)
- Light (2 - 5 trees)
- Moderate (6 - 15 trees)
- Severe (16 - 30 trees)
- Very Severe (>30 trees)

Map only depicts dead trees surveyed in 2021.
Areas of tree mortality are for visualization purposes only.

