Aerial Detection Survey, Pacific Southwest Region
Northwestern CA Preliminary Report, October 2023

Preliminary Summary
(numbers may change)
Area surveyed: 5.1 million acres
Acres with mortality: 47,910 acres*
*not including bear damage

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.

Surveyors: J. Moore, N. Stevens, G. Mayer

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%). Small groups of trees were recorded as point data and have no acreage assigned until later processing.

Survey Highlights: This report presents preliminary findings in and around the Six Rivers National Forest, Redwood National and State Parks, Point Reyes National Seashore, and private and industrial timber lands. For 2023, the Northwestern California service area has experienced approximately 47,000 acres with mortality, which is less than the five-year annual average of 140,000 acres.

NOTE: Due to large ongoing fires occurring in the Northern California area during the 2023 season and avoiding large fire footprints within the last three years, Aerial Detection Surveys were unable to achieve 100% coverage of this service area with ~5.1 million acres surveyed in 2023 compared to ~6.5 million acres surveyed in 2022. Previous year's acreage estimates include converted point data, while the current year point data have yet to be converted and that all 2023 data is still in draft form and subject to changes. Additionally, due to technical issues at the national level we are unable to include the last portion of our survey data in this report.

Tree Species Affected	Acres with Mortality
Douglas-fir	22,000
Ponderosa, Jeffrey, and knobcone pine	14,000
True fir	10,000
Tanoak	1,100
Incense-cedar	620
Other conifer (redwood, Bishop pine	190
Total	47,910

Bear damage	37,000

- Douglas-fir mortality was detected on approximately 22,000 acres, with 75% mapped at light to moderate intensities most noticeably along the western edge of the Mendocino NF. Douglas-fir mortality commonly occurred as single trees or in small groups which were captured using point data collection which are not included in this preliminary report.
- Ponderosa, Jeffrey, and knobcone pine mortality was detected across approximately 14,000 mostly at moderate intensities. Mortality was especially common near Round Valley, CA and throughout the Mad River Ranger District, Six Rivers NF.
- True fir mortality, including CA and Shasta red, white and grand fir was detected across approximately 10,000 acres throughout the coastal range, typically at light to moderate intensities.
- Tanoak mortality, most likely caused in some areas by Sudden Oak Death, was recorded on approximately 1,100 acres at light to moderate intensities. Much of the tanoak mortality was captured as point data in small groups, which are not included in this preliminary report.
- Incense-cedar mortality was detected across approximately 620 acres at very light to moderate intensities over several areas near Round Valley, CA. Additional incense cedar was captured as single trees and small groups using point data throughout the report area, and therefore not included in this preliminary report.
- Tree mortality was also recorded as point data in redwood, sugar pine, bishop pine, gray pine, Monterey pine, oak and other hardwoods, and is not included in this report.
- Bear feeding damage on young plantation mixed conifer was recorded on approximately 37,000 acres throughout the coastal range, typically at light to moderate intensities.

Ongoing severe ponderosa pine mortality located west of Round Valley, CA.

Please direct questions pertaining to this report to Jeffrey Moore
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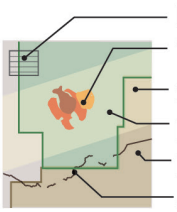
UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST HEALTH PROTECTION
AERIAL DETECTION MONITORING

2023 SURVEY
NORTH COAST



Recent excluded wildfires
Tree mortality
Surveyed area*
National Forest
National Park
County boundary

*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 2023.
Areas of tree mortality are for visualization purposes only.

FOREST SERVICE

https://www.fs.usda.gov/detail/r5/forest-grasslandhealth/?cid=fsbdev3_046696