

Aerial Detection Survey, Pacific Southwest Region Far Eastern California and Portions of Western Nevada, August 2019

Preliminary Summary
(numbers may change)
Area surveyed: 3.4 million acres
Acres with mortality: 110,000 acres

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 is visually surveyed and documented using Digital Mobile Sketch Mapping systems. Surveyors draw polygons or affix points (not included in this report) and annotate 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%). Multiple hosts are sometimes killed in the same area and this preliminary report assigns only the primary host affected.

Survey Highlights:

This report is of preliminary findings in and around the Inyo and Humboldt-Toiyabe National Forests and the Lake Tahoe Basin Management Unit LTMBU.

- White and California red fir mortality was detected across approximately 71,000 acres. Approximately 60% of these acres had light or very light mortality. Mortality was common throughout western portions of the area wherever these species occur. Generally higher intensities and extents occurred around Lake Tahoe and the Ansel Adams Wilderness and Golden Trout Wilderness areas of the Inyo NF. Mortality was generally common at high to very high elevations. Extensive, often severe fir discoloration/defoliation was evident, especially in the White Mountains.
- Five needle pine mortality includes limber and whitebark pine and was observed collectively across 25,000 acres with approximately 60% of this area categorized as either light or very light intensity, and primarily occurring in northern portions of the Inyo NF within the Ansel Adams and John Muir wilderness areas.
- Jeffrey and ponderosa pine mortality was detected across 11,000 acres, and virtually all was light or very light intensity. Extensive mortality was observed west and north of Mammoth on the Inyo National Forest.
- Singleleaf pinyon pine mortality was observed collectively across 1,600 acres, occurring in the far southern Inyo NF and categorized as either light or very light intensity.
- Lodgepole pine mortality was detected across 1,400 acres, and all was categorized as either light or very light intensity except for one area of moderate mortality near Mammoth Mountain on the Inyo NF.
- Aspen defoliation was common and often severe in areas around Mono Lake and far eastern Lake Tahoe Basin.

Tree Species Affected	Acres with Mortality
California red and white fir	71,000
Five-needle pine	25,000
Jeffrey and ponderosa pine	11,000
Singleleaf pinyon pine	1,600
Lodgepole pine	1,400
Total	110,000



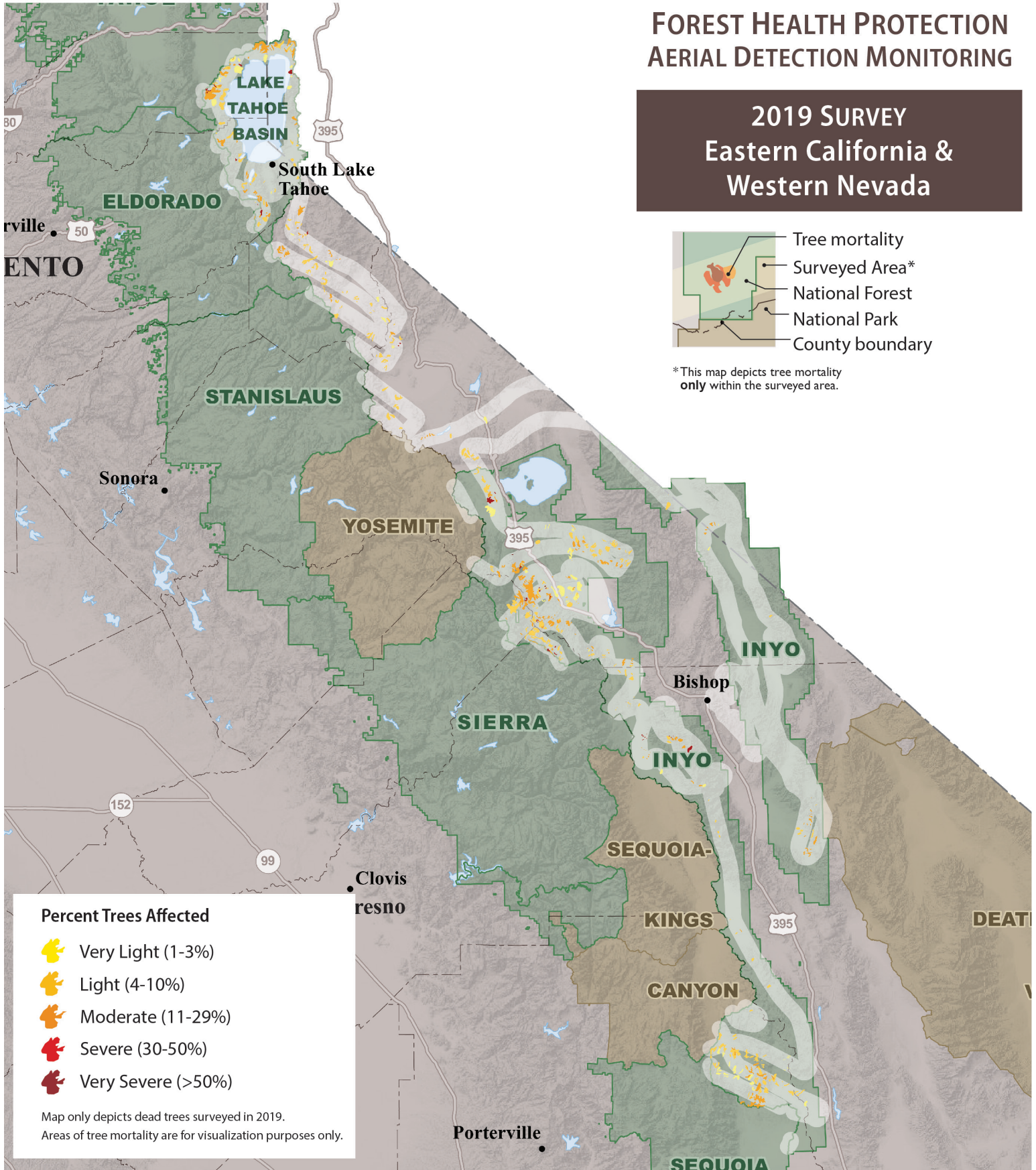
Whitebark pine mortality west of Mono Lake, Inyo National Forest.



Aspen defoliation east of Lake Tahoe, Toiyabe National Forest.

FOREST HEALTH PROTECTION AERIAL DETECTION MONITORING

2019 SURVEY Eastern California & Western Nevada



- Tree mortality
- Surveyed Area*
- National Forest
- National Park
- County boundary

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