

# Region 5 Forest Health Protection Survey

## Aerial Detection Survey – Update, June 13<sup>th</sup>, 2012

**Background:** Annual aerial detection surveys for tree injury and mortality have been conducted in California since 1994. This is an update of survey status for the 2013 survey season.

**Objective:** Detect and map tree mortality and damage in California / USFS Region 5.

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**Dates:** June 5, 11, 12, 13<sup>th</sup>, 2013

**Methodology:** Recently dead or injured trees (trees still retaining dead foliage) were mapped visually by surveyors using digital aerial sketch-mapping systems flying in a light fixed-wing aircraft approximately 1,000 feet above ground level. Surveyors record the number and species of affected trees and type of damage (mortality, defoliation, branch flagging) at each mapped location.

### Details:

- A short flight to Mount Saint Helena and Mt Konocti was conducted as a training and conformity flight on June 5<sup>th</sup>. Douglas fir, gray, knobcone and ponderosa pine mortality was observed in scattered pockets.
- Santa Cruz County and the South and East Bay were surveyed on the 11<sup>th</sup>. Coast live oak mortality was the main damage mapped in the Oakland Hills, while large areas of tanoak mortality was seen in the Santa Cruz Mountains. Mortality in the gray pines in the Diablo Range was also observed.
- A large area of intense live oak mortality was observed east of Watsonville as well, about 9 miles from the closest SOD confirmation. See Figure 2.
- Sonoma County and the North Bay area were surveyed on June 12 and 13<sup>th</sup>. Mortality from sudden oak death, primarily affecting tanoak, was mapped throughout the area. Coastal Sonoma County, especially areas around Jenner and Guerneville, had some of the highest levels of tanoak mortality. Point Reyes and coastal Marin County also had large areas of both coast live oak and tanoak mortality. The total number of acres and trees killed due to SOD in the surveyed area appear to be similar to last year's levels; 147,000 trees killed across 28,700 acres.
- Pitch canker continues to cause damage on Point Reyes, killing branches and often entire trees in dense bishop pine stands. See Figure 3.
- A large area of low-intensity Douglas-fir mortality was mapped near Mount Saint Helena.

### Figure 1. Flown area and mapped oak mortality

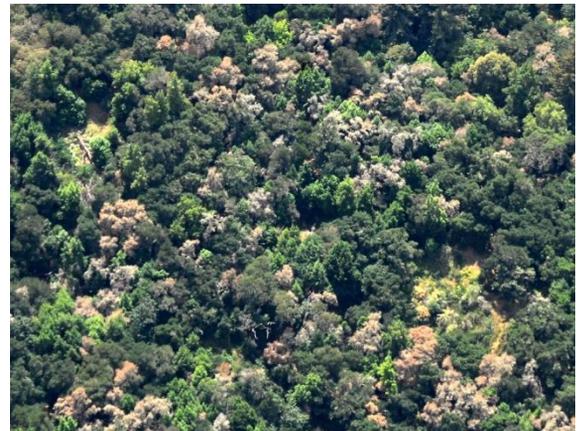
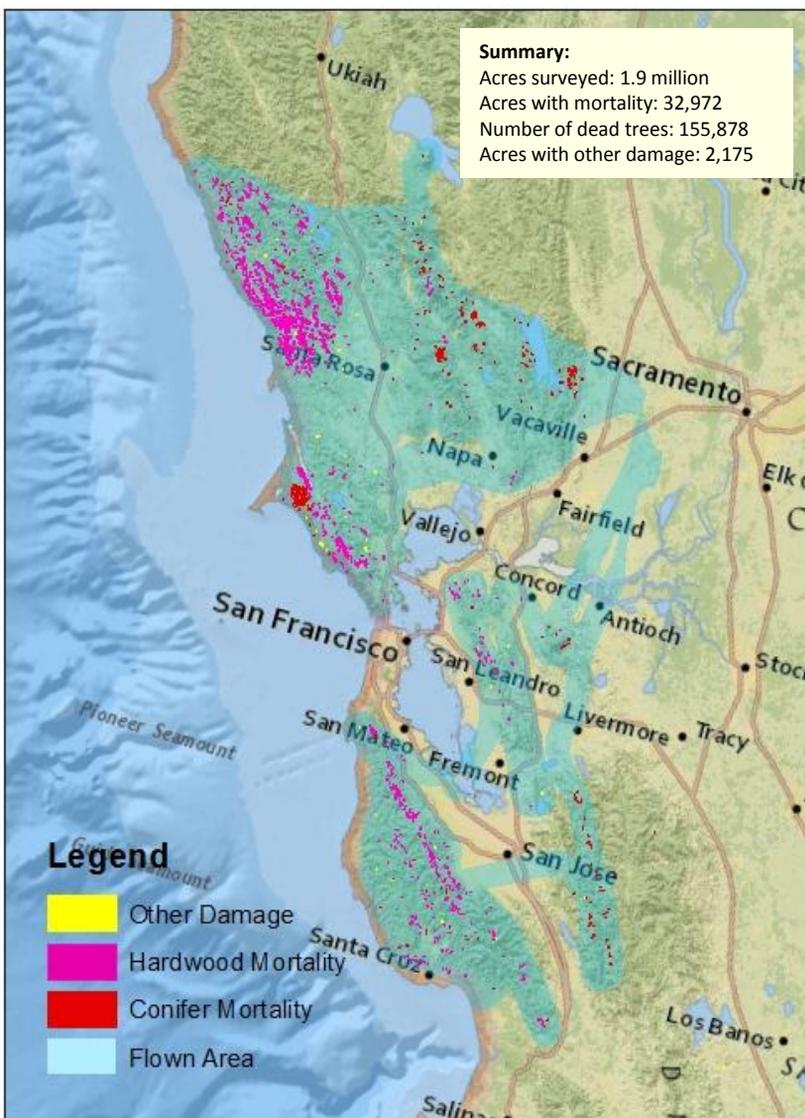


Figure 2. Coast live oak mortality east of Watsonville.



Figure 3. Pitch canker damage on Bishop pine on Point Reyes.

Direct questions pertaining to this report to Zachary Heath (email: [zheath@fs.fed.us](mailto:zheath@fs.fed.us) phone: 530-759-1751). Report Date June 18<sup>th</sup>, 2013.

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