

Aerial Detection Survey Update

Background: Annual aerial detection surveys for tree mortality and injury have been conducted annually since 1994. This is an update of survey status for the 2014 season.

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

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Methodology: Recently dead and damaged trees (still retaining dead foliage) were mapped visually by surveyors using digital aerial sketch-mapping systems, flying in a light fixed-wing aircraft approximately 1,500 feet above ground level. Surveyors record the number and species of affected trees and type of damage (mortality, defoliation, etc.) at each mapped location.

Details:

- About 1.2 million acres were surveyed, mostly in Marin and Sonoma Counties. The surveyed area included the Point Reyes National Seashore and parts of the Golden Gate National Recreation Area.
- Tanoak mortality from sudden oak death comprised the bulk of the observed mortality. However, less than 5,000 acres with oak mortality were mapped in the survey area, compared to over 20,000 acres the previous year. Areas near Occidental and Guerneville appear to have the most mortality, as well as west of Healdsburg.
- Pitch canker continues to damage and kill bishop and Monterey pine at Point Reyes.
- Scattered Douglas-fir, likely killed by flat-headed fir borer, was common in northern and eastern Sonoma County.

Figure 1. Flown area and mapped tree mortality and damage





Figure 2. Tanoak mortality, mostly from last year, from sudden oak death near Occidental, Sonoma County. Photo credit Lisa Bell.



Figure 3. Tanoak mortality, mostly from several years ago, near Guerneville, Sonoma County.

Direct questions pertaining to this report to Zachary Heath (email: zheath@fs.fed.us phone: 530-759- 1751). Report Date July 31, 2014.