

## Sudden Oak Death Special Survey

**Background:** Sudden oak death (SOD) was first detected in California in 1995. This disease, caused by *Phytophthora ramorum*, has since killed hundreds of thousands of oaks and spread to 14 counties in California. Annual aerial detection surveys for SOD have been conducted in California since 2001. San Luis Obispo County on California's central coast has remained uninfested despite having suitable habitat for SOD in close proximity to known infestations. The find of *P. ramorum* in San Carpofino Creek in southern Monterey/northern San Luis Obispo County means that the pathogen has moved south, potentially into San Luis Obispo County.

**Objective:** Detect and map areas with oak mortality in San Luis Obispo and southern Monterey County. Mapped areas will be ground checked by Cal Poly personnel for verification of the disease.

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**Date:** May 30<sup>th</sup>, 2013

**Methodology:** Recently dead tanoak and coast live oak 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. Photos of mapped trees were taken as well to aid in finding the trees. Cal Poly personnel will follow up the survey with a helicopter flight to obtain more precise GPS coordinates, and then ground check areas with oak mortality for presence of the *P. ramorum*.

**Details:**

- Almost 800 miles were flown, covering about 700,000 acres in San Luis Obispo County. Additionally, parts of Monterey, San Benito and other East Bay Counties were also surveyed during or en route to the survey. See Figure 1.
- Very few areas with oak mortality were observed outside the known area of infestation. About 18 discrete areas totaling 26 acres were mapped in San Luis Obispo County and southern Monterey County. These areas were mostly small clumps of 1-3 coast live oak trees. See Figure 2.
- Large expanses of intense tanoak mortality were observed in the known area of infestation. See Figure 3.
- Small areas of gray and Coulter pine and Santa Lucia fir mortality were observed in the survey area, similar in extent to previous years.

Figure 1. Flown area and mapped oak mortality

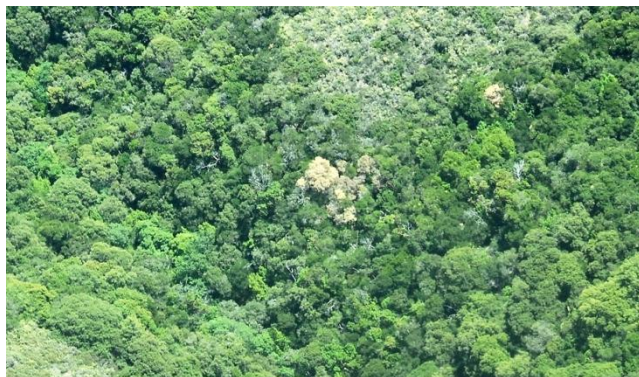
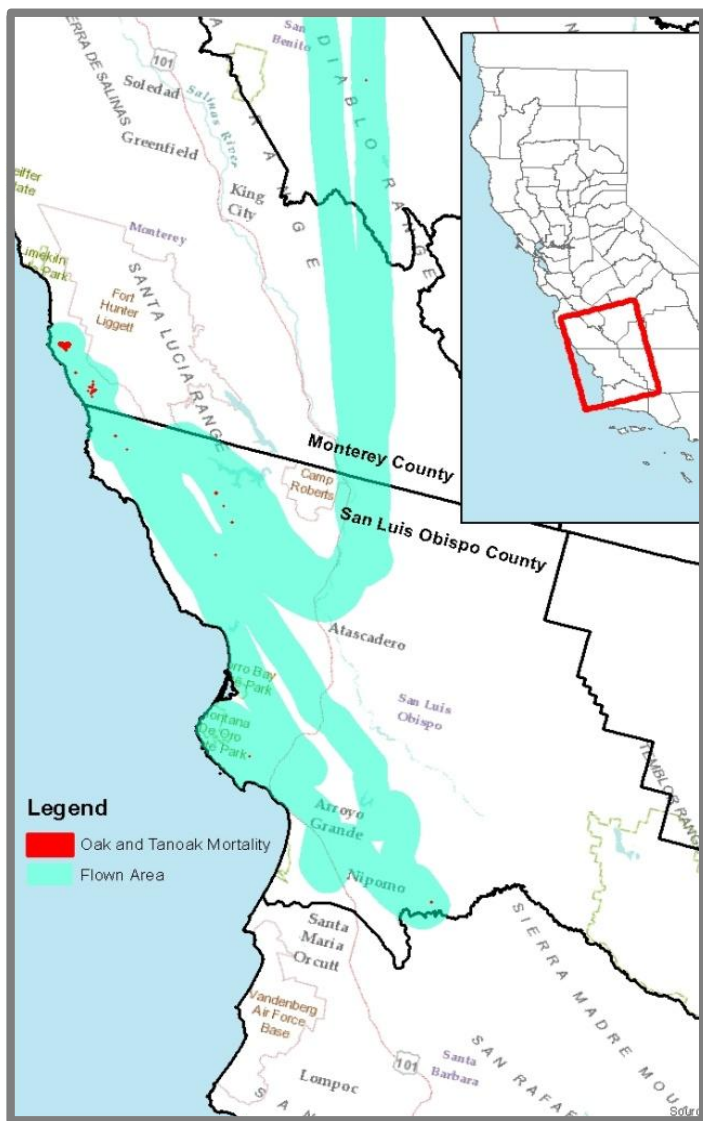


Figure 2. Coast live oak in San Luis Obispo County.

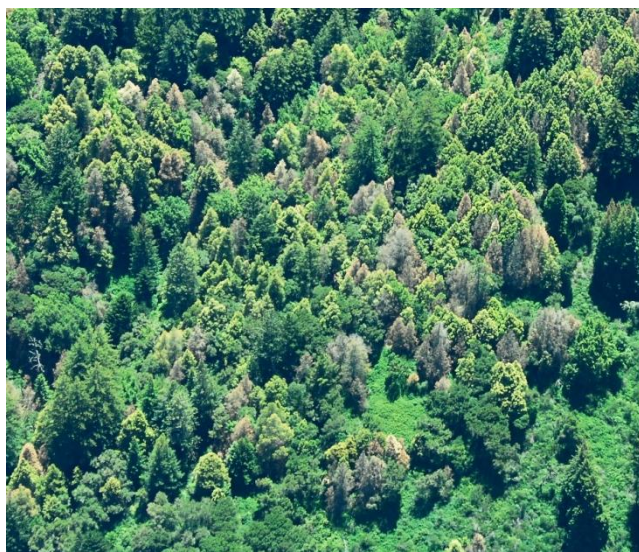


Figure 3. Tanoak mortality in Monterey County from sudden oak death.

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 4<sup>th</sup>, 2013.

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