

Region 5 Forest Health Protection Survey

Aerial Detection Survey – Update, August 3, 2013

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 season.

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

Surveyors: Z. Heath, B. Noyes, T. Coleman

Dates: July 30 to August 2, 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:

- The Angeles, San Bernardino and Cleveland National Forest were flown, along with Santa Monica Hills National Recreation Area and parts of the Sequoia National Forest and Park. See Figure 1.
- Gold-spotted oak borer activity appeared similar to previous years, with scattered coast live oak and black oak mortality throughout the Descanso Ranger District on the Cleveland National Forest. See Figure 2.
- Very low levels of mortality were seen in other parts of the Southern California Forests, mostly in Jeffrey and Coulter pine. Virtually no mortality was seen in the Santa Monica Hills.
- Localized areas of defoliation from fruit-tree leafroller, black pineleaf scale and pinyon scale were observed, affecting black oak, Jeffrey pine and Parry pinyon respectively.
- Mountain pine beetle appeared to be affecting a 6,000 acre area at Hockett Meadows on the Sequoia National Park.
- The extent of early leaf drop in blue oak in the Sierra foothills did not appear to change significantly since it was first observed in mid-July.



Figure 2 (above). Live oak mortality from gold-spotted oak borer on the Cleveland National Forest.

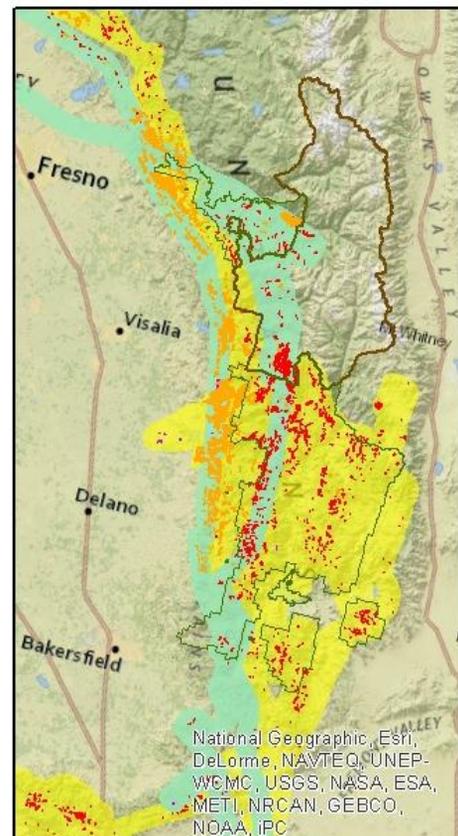
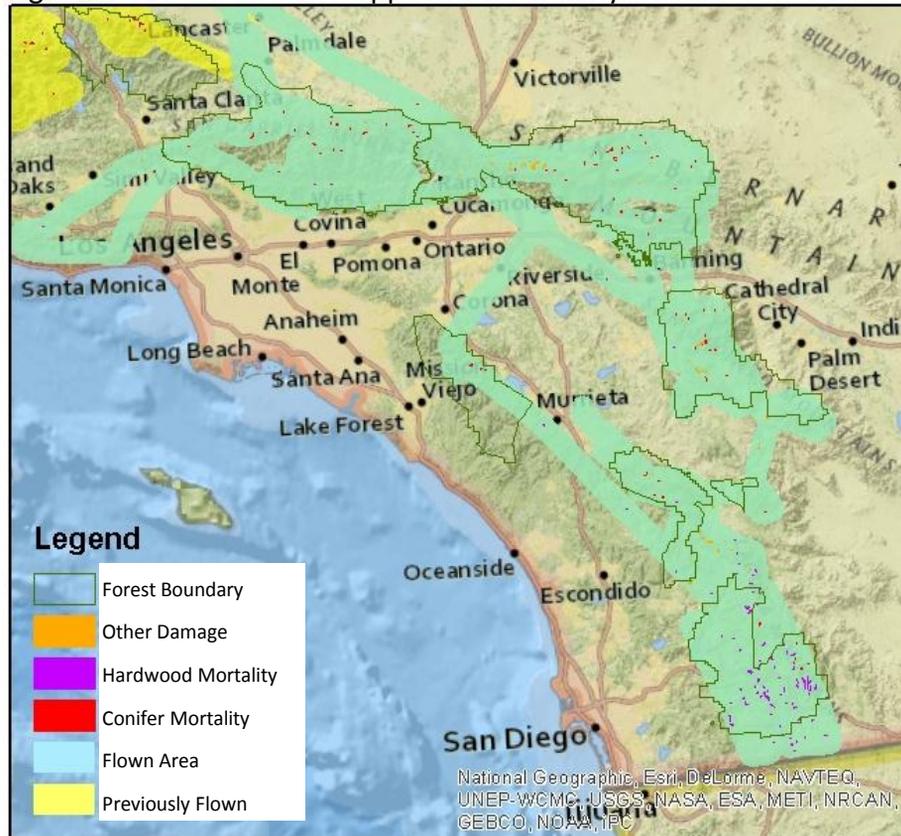
Summary for Southern California:
(flown July 31 and Aug 1)

Acres surveyed: 2.97 million acres
Acres with mortality: 1,391
Number of dead trees: 1,976
Acres with other damage: 879

Summary for Sierra and Tehachapi Ranges:
(flown July 30 and Aug 2)

Acres surveyed: 1.65 million acres
Acres with mortality: 29,206
Number of dead trees: 135,200
Acres with other damage: 67,500

Figure 1. Flown area and mapped tree mortality



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