

Region 5 Forest Health Protection Survey

Aerial Detection Survey – Update, August 16, 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, J. Moore, A. Jirka

Dates: August 13th through 15th, 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 eastern Klamath and Shasta-Trinity National Forests were flown, along with the western extent of the Modoc National Forest. See Figure 1.
- Mountain pine beetle was active on the Goosenest Ranger District of the Klamath N.F., primarily killing lodgepole but some ponderosa and whitebark pine was also mapped. See Figure 2.
- Ponderosa mortality was observed throughout the McCloud Flats area of the Shasta-Trinity N.F., but did not appear as intense as previous years. See Figure 3.
- Knobcone pine mortality was plentiful south of Mount Shasta.
- Several large areas of ponderosa mortality were mapped on the Doublehead, Big Valley and Devil's Garden Ranger Districts of the Modoc N.F. At least some of the mortality appeared to be caused by pine engraver.

Summary

Acres surveyed: 3.51 million acres
Acres with mortality: 44,200
Number of dead trees: 112,000
Acres with other damage: 618



Figure 1 (below). Flown area and mapped tree mortality

Figure 2 (above). Lodgepole and ponderosa mortality north of Mt. Shasta.

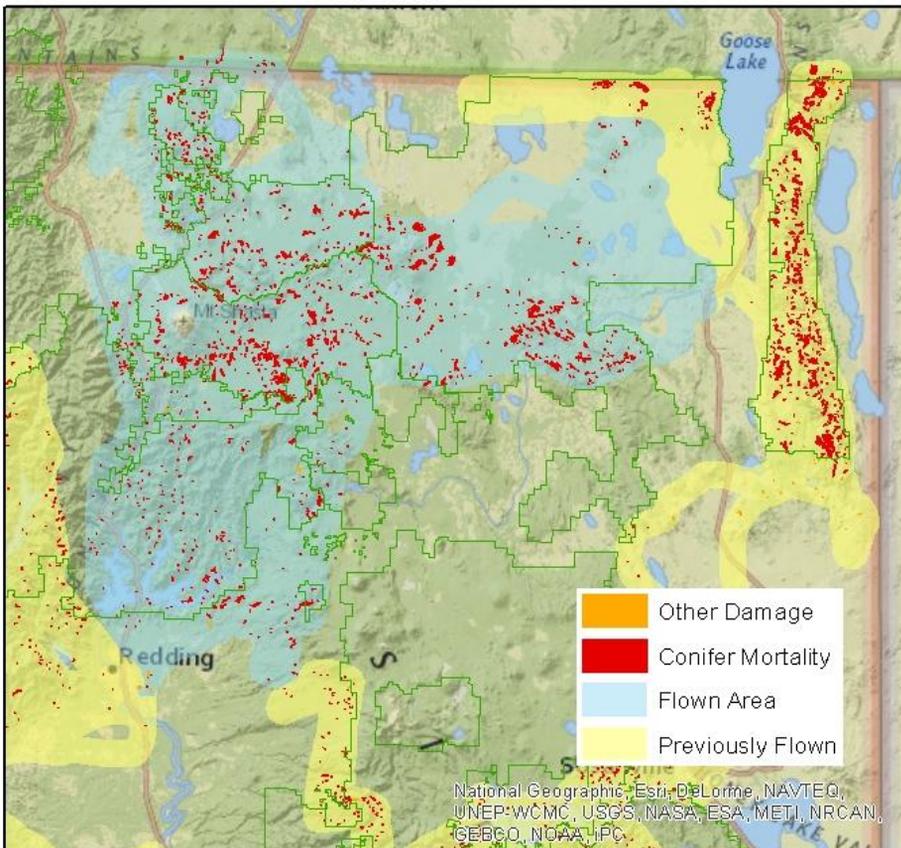


Figure 3. Typical area of ponderosa mortality in the McCloud Flats area of the Shasta-Trinity N.F.

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