

Six Years of Aerial and Ground Monitoring Surveys for Sudden Oak Death in California¹

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Abstract

Aerial surveys have been conducted since 2001 to map recent hardwood mortality and consequently target ground visits for detection of *Phytophthora ramorum*, the pathogen that causes sudden oak death (SOD). Each year the aerial and ground surveys monitored much of California's forests at risk for SOD resulting in new maps of hardwood mortality, detection of new *P. ramorum* infestations, and identification of areas unlikely to be infested by *P. ramorum*. Nearly 50,000 miles of California forest and woodland were flown by helicopter and fixed-wing aircraft over six years of aerial surveys. Of the 2,687 mortality polygons mapped, 669 were visited by field crews to check for SOD symptoms. Thirty-eight new confirmations of *P. ramorum* resulted from these surveys. The 2006 surveys covered 11 counties and resulted in 10 new detections. SOD is currently found in 14 counties in California, mostly on private land. Using risk maps combined with aerial survey data, areas where SOD is most likely to become established can be identified for monitoring and management. For more information on the monitoring surveys go to <http://www.fs.fed.us/r5/spf/fhp/fhm>.

Key words: Sudden oak death, *Phytophthora ramorum*, aerial survey, monitoring.

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