BERKELEY—2014 SOD BLITZ results reveal areas where *Phytophthora ramorum* (the pathogen known to cause sudden oak death - ‘SOD’) is thriving despite drought conditions and areas where infection levels are nearly undetectable, possibly offering an opportunity for impacted communities in the fight against SOD.

One of the largest citizen science programs in the State, SOD Blitzes are a grassroots effort organized by local volunteers in cooperation with the Garbelotto lab at UC Berkeley. The 500 participating citizen scientists in 2014 surveyed more than 10,000 trees and collected more than 2,000 samples. Participants were trained to identify SOD symptoms on California bay laurel and tanoak leaves and to properly record sample locations as well as mark surveyed trees for comparison in future years. Within 48 hours of collection, samples were processed by the Garbelotto lab to determine the presence or absence of *P. ramorum*.

Among 2014 findings in San Francisco County was a *P. ramorum*-positive redwood in The Presidio (National Park Service). While redwood isn’t harmed if infected, its needles support pathogen sporulation and spread. SOD has only been found once before in the park in 2011 on an oak. Oaks can die if infected, but they do not spread *P. ramorum*. Mitigation activities there are underway. Additionally, the main Golden Gate Park nursery continues to be infested; officials there are working to address the issue.

In eastern Santa Cruz County, a canyon on the San Benito County border was found positive. While this is one of the easternmost reports of SOD in California, it is in a cooler area that is conducive to the pathogen, with redwood and tanoak.

Unexpectedly high levels of *P. ramorum* were found in north Berkeley and Tilden Regional Park (Alameda County), with the pathogen not only found on California bay
laurel, but also on oaks. Similar findings were also made in the region between Novato (Marin County), Petaluma, and Sonoma (Sonoma County).

The drought has led to a reduction in the number of infected trees in many warmer areas with oak woodlands as well as in areas where SOD has recently become established, including southern Mendocino County, northern Sonoma County, and a portion of Alameda County as well as the eastern S.F. Peninsula and Carmel Valley Village (Monterey County).

“Given the dry weather, SOD Blitz results this year have been very site specific, with pathogen levels decreased in drier areas, yet, areas nearby with cooler conditions still have higher infection rates. Updating SODMap with these findings will serve as one tool in helping inform people about the risk of SOD in their neighborhood, which may offer input as to when preventative measures might be appropriate to implement, including preventative treatments based on new recommendations and, in some cases, selective bay removal,” said Matteo Garbelotto, UC Berkeley.

Four regional meetings will be offered (East Bay, Peninsula, Sonoma, and Carmel Valley – see http://nature.berkeley.edu/garbelottowp/?page_id=816 for details) to help community members interpret results and understand recommended management options. SOD Blitz results are also available online at www.sodblitz.org, where results from 2008 to 2014 can be viewed using Google Earth. This year a geographically based chart has also been posted, with results compiled based on ecologically related regions and at a smaller scale than in previous years.

SOD is a serious invasive, quarantine disease that is killing tanoak, coast live oak, California black oak, Shreve’s oak, and canyon live oak trees in California. Since its discovery in 2000, more than 3 million trees have died, making it the number one cause of tree mortality in California coastal forests. Other major findings for 2014 that were not associated with SOD Blitzes, include P. ramorum-positive oaks on the Monterey peninsula, SOD in Redwood National Park, and SOD in Trinity County.

For more information on SOD Blitzes, go to www.sodblitz.org. For more information on Sudden Oak Death and P. ramorum, go to the California Oak Mortality Task Force website at www.suddenoakdeath.org or contact Katie Palmieri at (510) 847-5482 or kpalmieri@berkeley.edu.

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