

Sudden Oak Death SOD Blitz 2020 Report

In 2020 SOB Blitz volunteers surveyed 21943 trees covering over 170716 acres in 18 counties. A total of 2023 symptomatic trees (tanoaks and bays and few other species) were sampled and tested at UCB. In spite of the decrease in rainfall levels throughout Central and Northern California, the Statewide Estimated true Rate of infection increased from 6.1 to 7.4 %. This rate includes four counties that were negative (meaning SOD Blitz samples were negative, not that the County does not have known *P. ramorum* infestations. Remember that a sample means a tree/plant. About 5-10 leaves per plant are processed, so 15.000 leaves were processed in 2020. The increase in *P. ramorum* positives in spite of a reduction in rainfall is unusual and further proves the disease has truly become endemic in areas of California that have been infested for 10 or more years.

Statewide level infection in 2020 7.4% up to 6.1 % in 2019 (2023 samples were processed)

Negative Counties

- 130 samples from throughout San Luis Obispo County were negative
- 49 samples from San Francisco County (only Presidio, Golden Gate Park where most positives were found previously was not sampled due to Covid restrictions)
- 7 samples from three locations in Lake County were negative
- 33 samples from several sites of Del Norte 15 miles North of the Humboldt County border all the way to the Oregon border: two positives were identified by the 2019 SOD Blitz and UCCE/Calfire identified two more positives 5 miles from the original infestation.

Counties with areas consistently negative

- The Southeastern part of Alameda county (Sunol area) was negative

Areas with estimated infection rate (in bold those with significant variation)

Big Sur (n= 28)	49.7 % in 2020 from 42.4 in 2019
Carmel (n=245)	9.9 % in 2020 from 5.4 in 2019
East Bay (=164)	
(East of Hills)	7.8% in 2020 from 0.5% in 2019 (tenfold increase)
East Bay (n=110)	
(West of Hills)	12.8 in 2020 from 12% in 2019
Marin (n= 219)	9.5% in 2020 from 7.1% (Interesting given infestation is rather constant in this County)
Mendocino (142)	6.3% in 2020 from 0.5% in 2019
North Penins. (38)	11.4% in 2020 from 6.3% in 2019
East Penins. (54)	11.1 % in 2020 from 1.7% in 2019
West Penins (337)	13.1% in 2020 from 18.1% in 2019
Santa Cruz (46)	14.2 % in 2020 from 0.4% in 2019
Sonoma East (189)	8.3% in 2020 from 20.4% in 2019
Sonoma West (69)	5.1% in 2020 from 9% in 2019
Sonoma North (31)	5% in 2020 from 1% in 2019
Napa (108)	0.3% in 2020 from 7.6% in 2109

1)- Trends: many truly coastal sampled areas from San Mateo North have witnessed a decrease in % infection

2)- Truly coastal areas in Santa Cruz and Monterey County are stable

3)- Warmer but mesic oak woodlands areas have all witnessed an increase: Carmel valley, most of the Peninsula, Contra Costa County, Northern Inland Sonoma County

4)- Very warm areas: Southern Alameda, Santa Clara, Lake County, Mount Diablo
Urban areas: decline: Napa, Santa Rosa, Los Gatos, San Francisco, Oakland

It appears that SOD spread is being slowed down in strictly coastal cooler areas, areas (is there a competitor on bays?), it is spreading **more than predicted** based on rainfall in warm areas (truly coastal in southern part of range or slightly inland elsewhere), and it is slowing down or is not detectable in much warmer areas. The difference in spread between lower spread in truly coastal cooler areas and higher spread in warmer inland areas is noteworthy. Again warmer temperatures seem to be a deterrent when rainfall decreases.

Noteworthy outbreaks:

Salmon Creek Canyon, Southern Big Sur Monterey County

Molera State Park, Monterey County

Garland Park, Carmel valley, Monterey County

San Clemente Canyon, Monterey County

Robinson Canyon, Monterey County

Empire Grade, Santa Cruz County

UCSC

Rapley Trail and Portola Redwood State Park

Los Altos Hills

Tilden Regional Park (Alameda?Contra Costa)

Joaquin Miller State Park (Alameda)

John Muir National Historic site (Contra Costa County)

Sobrante Ridge Regional Reserve (Contra Costa County)

Napa River trail (Napa)

Tamalpais Homestead Valley (Marin)

Oahir Park (Marin)

Hillsborough (San Mateo)

Novato (Marin)

Anderson Valley (Mendocino)

Route 253 half way between Boonville and Ukiah

First Nation Land in Sonoma County

Calistoga (Napa)



A comparison of 2019 (1st July 2018 to 30th June 2019) and 2020 rainfall levels.