Trees and People

Sudden Oak Death Blitz 2017 results are in

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Bill Pramuk: Trees and People

For the seventh year in a row, Napa "citizen scientists" participated with the UC Berkeley Forest Pathology and Mycology Lab in an ongoing effort to track Sudden Oak Death (SOD), the exotic disease that has killed hundreds of thousands of oaks and tanoaks in California.

The Napa SOD Blitz was held on May 6 and the results came out in October.

The disease is caused by Phytophthora ramorum, a microscopic organism that spreads during periods of relatively warm, rainy weather in late spring in northern California, according to the lab's website.

As predicted by Dr. Matteo Garbelotto, the Berkeley lab director and lead researcher, heavy and persistent rainfall last winter and spring led to increased infection rates—the worst he has seen since he initiated the testing program in 2007.

Interestingly, the Napa results showed a very low infection rate. And I was surprised to see all negative results two years in a row after submitting samples with classic symptoms from an area along the Napa River Trail between Trancas Street and Lincoln Avenue.

It was good news for Napa, especially after all the horrible fire destruction in October.

Blitz volunteers take samples of symptomatic leaves from California bay laurels, the main vector for the disease. Here is a comparison of Napa with other Blitz areas:

Napa County: 116 trees sampled. Positives: 1.7 percent

Carmel: 214 trees sampled. Positives: 47.7 percent

Marin County: 136 trees sampled. Positives: 27.2 percent

San Francisco Peninsula South: 126 trees sampled. Positives: 62.7 percent

San Luis Obispo: 289 trees sampled. Positives: Zero

Sonoma County West: 89 trees sampled. Positives: 69.7 percent

The positives in Napa were in remote, wooded areas—one in Skyline Park along the Lake Marie Road, and one in a remote area between Mt. Veeder Road and Dry Creek Road.

Looking at the Google Earth 2017 SOD map (available through the matteolab website), where the positives are shown as red tree icons, the disease appears concentrated approximately along the coast from Big Sur at the southern limit and almost up to Fort Bragg at the north end.

The map allows for viewing results for each year starting with 2008, revealing a slightly broader distribution, with some positives just east of Mt. Diablo, and more positives in Napa County in previous years.

With respect to the recent wildfires, Dr. Garbelotto has said there is an obvious overlap of burned areas and SOD infected areas. Dead and dying, drier trees burn more readily, but that does not mean SOD was a major contributor to the fires.

Look at the burned mountainsides from Atlas Peak and southward to Skyline Park. The burn areas do not coincide with high rates of SOD infection.

At our 2017 SOD Blitz fall workshop session at the Napa County Library, someone asked if the fires might have cleaned out SOD. It is an interesting supposition, since the disease needs moisture and foliar hosts for active growth. I responded that the effect would be temporary.

Garbelotto has stated the disease can be expected to return when the susceptible vegetation returns.

Of further interest, the Berkeley lab's studies now show P. ramorum killing manzanitas of species that were previously only moderately damaged. Also, infections are increasing in urban areas and places frequented by people. As yet, and as far as I know, no conclusions are being drawn as to the correlation.

Keep in mind the disease can move from place to place in plant material, debris, and soil, and it can survive as a chlamydospore, a tiny, thick-walled resting structure that can survive dry conditions and germinate when conditions are right.

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