

The 2020 Sudden Oak Death Blitzes: what, why, when and where?

More details at www.sodblitz.org

SOD BLITZ PROJECT INTRODUCTION

Sudden Oak Death (SOD), a serious exotic disease, is threatening the survival of tanoak and several oak species in California. Currently SOD is found in the wildlands of 14 coastal California counties, from Monterey to Humboldt. While patchy in distribution, with each passing year, the swath of infection continues to become more contiguous. Researchers have discovered that *Phytophthora ramorum*, the pathogen that causes SOD, spreads most often on infected California bay laurel leaves. Symptomatic bay leaves are often the first sign that SOD has arrived at a location, and generally precedes oak infections. Some management options are available (sanitation, chemical preventative treatments, bay removal), but they are effective only if implemented before oaks and tanoaks are infected; hence, timely detection of the disease on bay laurel leaves is key for a successful proactive attempt to slow down the SOD epidemic.

WHAT IS A SOD-BLITZ?

SOD-blitzes are regarded as one the first programs in the world to train volunteers to become scientists and work with career researchers to understand the distribution of an invasive and lethal tree disease. The SOD-blitzes are all locally organized by community environmental leaders with the support of U.C. Berkeley. SOD-blitzes inform and educate the community about Sudden Oak Death, get locals involved in surveying for the disease, and produce detailed local maps of disease distribution. The map can then be used to identify those areas where the infestation may be mild enough to justify proactive management. The public sharing of crowdsourced data in real time through the web (SODmap.org), an App (SODmap mobile) and the media is unique in the world and allows for large scale dissemination (millions of people) of information necessary to prevent oak infection. Blitzes are appropriate for people of all ages, and collection of plant material (leaves) can be done in private properties, along roads or in natural areas, depending on the interest of each participant. In a few cases, more precise sampling areas (normally within parks or preserves) will be assigned to each participant.

WHY PARTICIPATE IN THE 2020 BLITZES?

-In 2019 alone, one million tanoaks and an unspecified number of oaks were killed by SOD; these are staggering numbers and the disease is threatening the existence of many species of California beloved heritage trees. Fight back by participating in a BLITZ and help public agencies and individual land-owners to identify outbreaks, so that disease mitigation practices may be implemented in the vicinity of such outbreaks.

-The disease is on the move: Del Norte County, San Luis Obispo, and inland regions are in dire need of better surveys to monitor for the arrival of the pathogen, often present nearby. Many new outbreaks are discovered each year in counties known to be infested. San Mateo, Alameda, Contra Costa, Monterey, Mendocino are all good examples. Currently only 30% of forests that could be home to SOD has been infested.

- SOD is caused by an exotic microbe that is progressively invading California. Many neighborhoods and forests have already been invaded, and volunteers may have helped identifying these early infestations. HOWEVER: the issue is not simply presence, but local distribution and patterns of presence/absence of the disease. These aspects of SOD are becoming evident only now in the post invasion-phase. We need all sites to be resampled at least 3-4 times, so even if you already participated and you canvassed your neighborhood or favorite forest, we need you to come back. Basically many aspects of SOD are changing at each location with time.

-Danger is looming: two strains of the disease new to California (EU1 and NA2) are approaching the boundaries of our forests. These are potentially more aggressive strains that need to be identified immediately upon entering our forests, so that we may have a chance of eradicating them. These new strains could be anywhere, so a widespread extensive survey approach, such as that offered by the SOD Blitzes, is our only way to stop these strains from proliferating. Research study plots cover too little of California to be helpful, so volunteer-led surveys are our only real option. All samples collected by volunteers are tested for strain as well providing a unique service.

VOLUNTEERS ARE THE BEST CHANCE WE HAVE TO GATHER INFORMATION NECESSARY TO PROTECT OUR OAKS, CALIFORNIA IS A WORLD LEADER IN COMMUNITY INVOLVEMENT. LETS' KEEP IT THAT WAY. IF YOU HAVE NEVER PARTICIPATED IN A SOD BLITZ, COME AND BRING YOUR FAMILY AND A FRIEND. IF YOU HAVE ALREADY PARTICIPATED IN THE PAST, WE NEED YOU TO COME BACK AS THINGS HAVE CHANGED. THE SCHEDULE OF EVENTS IS ATTACHED, PLEASE SHARE IT.