



California Forest Pest Council

Fostering education on the pests of California's forests since 1951

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Upcoming Events - Save the Date!

October 1-2: California SAF Fall Meeting, [Virtual Fall Meeting](#).

November 9-12: Western Chapter ISA 86th Annual Conference, [Meeting Information and Registration](#).

November 11-25: On-Demand content available: Entomological Society of America, [Virtual Annual Meeting](#)

November 18-19: California Forest Pest Council, 69th Annual Meeting, [Virtual Annual Meeting](#)

Forest Pests and Wildfire in California

This season's explosive wildfires in West Coast states highlight how little we know about the interactions between forest pests and other disturbances. Speculation abounds, but systematic study of important questions lags. Do pest infestations change wildfire behavior and intensity? How does wildfire affect pest occurrence and behavior-which pest populations does it reduce, and which ones does it actually help increase? How do changing climate conditions, such as increasing vapor pressure deficit during warmer summers, contribute to both wildfire and pest population expansion?



Figure 1. A burned landscape of native Monterey pine (*Pinus radiata*) and non-native eucalyptus species near Año Nuevo State Park in Santa Cruz County. For many years, the pines in this area have been heavily infested with the pitch canker fungus.

These questions need further exploration, but some investigations provide important insights. For example, Allison Simler-Williamson, a UC Davis postdoctoral scientist, worked with David Rizzo and other colleagues to monitor the development of the sudden oak death pathogen (*Phytophthora ramorum*) in areas of Big Sur that have burned several times within the past two decades. The group maintains sudden oak death monitoring plots throughout California, and the fires in Big Sur provided multiple opportunities to observe how the pathogen responds to wildfire and compare burned plots to infested but unburned ones.

Although the sudden oak death pathogen is still present in Big Sur, the fires do appear to have affected its trajectory, and it interacts with post-fire vegetation properties in interesting ways. Simler-Williamson et al. 2020 found, "Past wildfire altered disease dynamics and reduced SOD-related mortality, indicating a negative interaction between these abiotic and biotic disturbances. Frequently-burned forests were less likely to be invaded by *P. ramorum*, had lower incidence of host infection, and exhibited decreased disease-related biotic disturbance, which was associated with reduced occurrence and density of epidemiologically-significant hosts. . . . Notably, the effect of *P. ramorum* infection on host mortality was reduced in recently-burned areas, indicating that the loss of tall, mature host canopies may temporarily dampen pathogen transmission and "release" susceptible species from significant inoculum pressure." You can find some of Simler-Williamson's research [here](#).

Several of this year's major wildfires burned in areas featuring notable native or non-native pest impacts from recent years. For example, the Creek Fire is burning in some of the most extensive stands of beetle-killed conifers in the southern Sierra Nevada; wildfires in Sonoma, Marin, and Santa Cruz counties burned in pine and tanoak stands with severe infestations of pitch canker and sudden oak death; and the LNU Complex injured oak trees vulnerable to the non-native Mediterranean oak borer in Napa, Lake, and Sonoma Counties.



The "Bracken Brae" population of Santa Cruz cypress (*Hesperocyparis abramsiana*) near Boulder Creek in Santa Cruz County, before (Figure 2a) and after (Figure 2b) the CZU Lightning Complex wildfires. Only five populations of this rare conifer are known. Cypress trees are well-adapted to fire, and the pre-fire stand was declining partly because of a build-up of pathogens in the stand (such as *Seiridium* sp., the cause of mortality of the young tree in the "before" photo). Will this fire be beneficial for the health of this stand?

These areas will provide interesting lessons in post-fire pest dynamics and host tree regeneration over the coming years. The CFPC encourages land managers and scientists working in California's recent wildfire scars to keep the community posted on what you see out there by emailing Kim Corella, council secretary, at kim.corella@fire.ca.gov, or by providing feedback to your nearest forest health professional for inclusion in this year's Forest Health Conditions report.



Figure 2b: Santa Cruz cypress in Santa Cruz County after wildfire.

For more information please visit <https://ucanr.edu/sites/mobpc/>

2020 California Forest Pest Council Annual Meeting

After careful consultation with the CFPC executive committee regarding the health and safety of everyone in our industry and profession and communities, we have made the difficult decision to move the CPFC annual meeting from an in-person meeting to an interactive online webinar meeting.

Dates: November 18th & 19th from 1-4PM each day.

Webinar meeting link: Coming soon

CEU's: DPR, SAF and ISA are being applied for

Updates will be shared on the CFPC website, <http://caforestpestcouncil.org/>.

We thank everyone for their understanding to this change in format and know that we look forward to hopefully having the CFPC annual meeting in person next year for the council's 70th anniversary.

Warmest regards and to staying healthy,
Bob Rynearson
Chairman, California Forest Pest Council

Newsletter feedback and ideas are welcome. Please submit comments to caforestpestcouncil@gmail.com.

When buying firewood for camping or home heating this fall, remember to buy wood sourced local to where you will be using it, helping to minimize the spread of pests and diseases - **Buy It Where You Burn It** For a list of local firewood dealers, go to firewoodscout.org.

Sincerely,

The California Forest Pest Council



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