The Dying Trees and Shrubs of Oakland
By Karen Paulsell

In these times, with so much sickness in our cities and our country, we escape to the parks for a little relief. While the natural environment does serve as a refuge, it is also distressing to find many trees and shrubs that remind us of what we came to escape.

It all started in the spring of 2020 with a few FOSC folk noticing some dying blackwood acacia trees and it has been expanding from there. My co-conspirator in this effort, John Brega, is a long-time adopt-a-spotter, managing vegetation along the western Sunset Trail and Chaparral Trail in Joaquin Miller Park. I think a photo essay is the easiest way to explain what is going on: Lots of woody trees and shrubs are dying in our parks. It's not just the Sausal Creek Watershed parks, it's not just Oakland parks, it is a regional issue. Let's take a look.

Blackwood acacias in Dimond Canyon above the Bridgeview Trail.

An affected, surely dying blackwood acacia right by Mountain Boulevard at the end of Park Boulevard.

From a distance, the patches of sick **blackwood acacia** in Joaquin Miller Park are eerily beautiful, but we know these stands of affected trees add up to dozens, maybe hundreds, of tree trunks. They will all become standing dead wood, with lots of woody debris below, creating a serious fire danger. They will also be a danger to those who use roads, trails, or buildings nearby. The problem seems to be affecting only one of our three kinds of acacia, the blackwood, but we have seen signs that the other two types are suffering as well.

While the dying blackwood acacias display red leaves, other species are just turning black, like this **black wattle** branch leaning across the trail (above right).

When out looking for affected acacias in Joaquin Miller Park, I noticed that some **eucalyptus** are also losing leaves from their canopy. This photo shows a few of the 25+ trees that line Sanborn Drive. John has spotted more patches of affected acacias in Joaquin Miller Park and a large patch in Tilden Park.

This was a solid wall of green; now canopies are drastically thinning, with leaves turning brown and yellow before they fall.

We also see signs of stress and/or disease on **bay laurel** trees and **toyons**.

While bays normally drop some leaves in the fall, the amount of dieback we're seeing is abnormal. This photo was taken using Solocator on a mobile phone, which adds the timestamp, lat/long, compass heading, and altitude.

In addition, some shrubs are also showing signs of decline, including **coyote brush, monkeyflower, and French broom**. Again, we're not sure how much is caused by drought and heat stress and if diseases might play a part. John Brega's post-rain report is that the monkeyflower seems to be reviving. What a relief!

Here's the edge of a patch of dead coyote brush at Lake Chabot; the dead coyote brush extends for acres.

The sad news from late December and early January is that our beloved toyons are also becoming sick, losing their leaves, with the newest leaves growing twisted and malformed. May Chen has photographed sick plants and foliage along the Bridgeview Trail, and John Brega reports from western Joaquin Miller Park "every toyon we saw (there aren't a lot in that part of the park) was sick. That was shocking, especially because it wasn't true a month ago. It's moving very fast through that population." John Brega also reports affected cotoneaster. First the bad news, then the good news, eh?

Declining toyon on Bridgeview Trail, photographed by May Chen.

We also have a few shrubs on our watch list, such as plants that seemed to experience their fall color change and leaf drop in June. We'll have to wait until spring to know if there is a problem. Also, we don't have any clue about effects on our perennials and grasses.

The decline and death of these tree and shrub species is added to older, existing problems in our parks, including:

- Sudden Oak Death (SOD) which is killing **oaks** and **madrones**
- Pine pitch canker and old age, which are killing **Monterey pines**
- A type of water-mold (Phytophthora), which is killing our rare **pallid manzanitas.**

We don't know whether the demise is caused by heat/drought stress and late rains, whether it's the stress plus a single disease, or whether there are multiple culprits involved. Scientists (U.S. Forest Service and U.C. Extension) recently took a new batch of samples in Joaquin Miller Park, along the Sunset, Sequoia-Bayview, and Castle Park Trails, and are analyzing them, a process that takes a few weeks. They are, after all, trying to find a needle of pathogen in a haystack of plant material. We'll hopefully have more definitive information soon. The East Bay Regional Parks District is also stepping up their efforts to identify the pathogen.

Meanwhile, volunteers are still checking plants in the parks, hoping we don't have to add to the list of affected natives, and hoping to contribute clues to the scientists' ongoing investigations. FOSC community members are important monitors; some of the initial reports of potentially affected species were made by John and me.

What you can do:

- If you cut an infected tree on your property, the best thing to do with the wood is to leave it in place, either as logs or as chips. Moving the material could spread the pathogen, whatever it is.
- If you spot trees that put cars, people, or buildings at risk, here are ways to report it:
    - Oakland's Tree Services Division manages dead and dying trees that might cause human injury or infrastructure harm in public spaces. Dial 311; be prepared to describe the exact location!
    - Online--go to www.oaklandca.gov/services/oak311; again, be ready to map the exact location, and if you can, add a photograph.
    - If you have the Oak 311 app on your mobile phone, you can file a report right on the spot. You can download this app from the oak311 website.

> **Note:** photographs in this article by John Brega, May Chen and Karen Paulsell. Please send information about other locations or problem species to kpaulsell@pacbell.net

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