

Ca. Dept of Agriculture in Sacramento couldn't figure it out.

**Blomquist, Cheryl@CDFA <cheryl.blomquist@c** Mon, May 14,  
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to Suzanne@CDFA, Pat, me

Hi Dale,

We all looked at the photos you sent and I have a few comments. We would be happy to look at some samples but they must have a dead/live margin otherwise we cannot connect any disease causing organism with the actual symptoms. We could not see any of these rotten/healthy margins in your photos. Trees that are dying that still have some green on them are the best ones to sample. Completely dead dry trees are not useful for disease diagnosis. When trees die, it is common for the bark to first start sloughing from the sunny side of the tree. This is usually part of the secondary decay process. The irrigated trees at the golf course may or may not have died due to the same reason as the ones in drier areas. It is difficult to say. Symptoms of conifers not having enough water is exactly as you described: that the inside needles and lower needles drop first, the tree hangs onto the outer and upper needles. This is the trees way of maintaining its highest photosynthetic ability for the least amount of water. Trees fail at the root collar for various reasons. Many trees as they age are infected by heart rot fungi and when the tree is stressed due to other reasons the trees fail at the root collar. In those trees that fail at the root collar, if you could find a rotten/healthy margin we could look for organisms that are rotting the root collar area. They also can fail in that area because the roots are rotten. If you would like to send us root samples of any failing Torrey pine, we could check them for disease. They also may be failing for neither of these reasons. I would not water Torrey pines outside of the season they usually would receive water from winter rains, and I would deep water to 18 inches if rains have been limited. Most CA native trees are not adapted to watering at other times of year. Most of our California natives are susceptible to root and crown rotting organisms that like mild wet conditions. Understand that if there is a disease causing organism causing the primary problem in this tree, when the tree fails, saprophytic organisms (usually fungi) grow and finish the decay of the tree. If the secondary process is too far along when we get the sample, we will never identify the initial disease causing organism and will isolate only the saprophytic organisms. One of the hard parts of figuring out what is going on in trees is the delay from the event and the symptoms. For example on redwoods we see symptoms of drought stress on redwoods from the summer before, during the late fall or winter---months after the actual drought stress. Please let me know if you will be sending in samples. Thanks for your patience in the response.

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9:15 AM

to cblomquist

Dr. Cheryl Blomquist

Thanks for speaking with me yesterday on the phone. We are a few concerned citizens looking into why Torrey Pine Trees are dying both inside Torrey Pines Reserve and in the general vicinity. We understand the official story is drought and beetles but also believe there is much more to it, and specifically would like to figure out if any fungus is involved. You suggested I send pictures as a starter.

Picture 1: General shot of the die-off. This group died all at once, but sometimes they die individually.

Picture 2: Irrigated trees on Torrey Pines Golf Course that did not have beetles also died. This picture shows 2 but in total over 40 died.

Picture 3: Typical way they die. Bottom branches lose needles first and crown thins.

Picture 4: Many times they die all at once.

Picture 5: State Parks tried pesticide plugs.

Picture 6: Base of the trunk.

Picture 7: Oozing at previous cut.

Picture 8: Discolored bark.

Picture 9: Damage to branches and bark is more flaky on sun side.

Picture 10: Needles, maybe discoloring or oozing at tip.

Picture 11: Trees fall over and break at root collar.

Picture 12: White splotches on trunk and branches.

I also attached San Diego County Pathology Lab's evaluation. Any help you provide is appreciated.

Thanks,  
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