Tahoe Daily Tribune | lake tahoe action

Tree mortality on decline, but drought conditions continue

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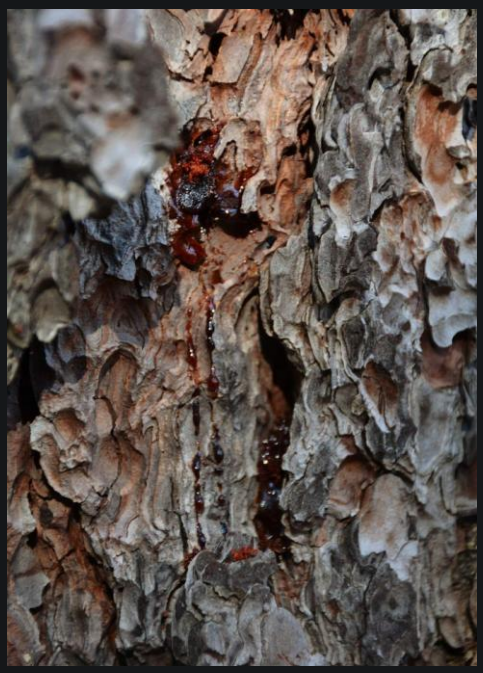
Red pitch expelling from a tree means that bark beetles attacked the tree and were able to successfully get inside the tree.



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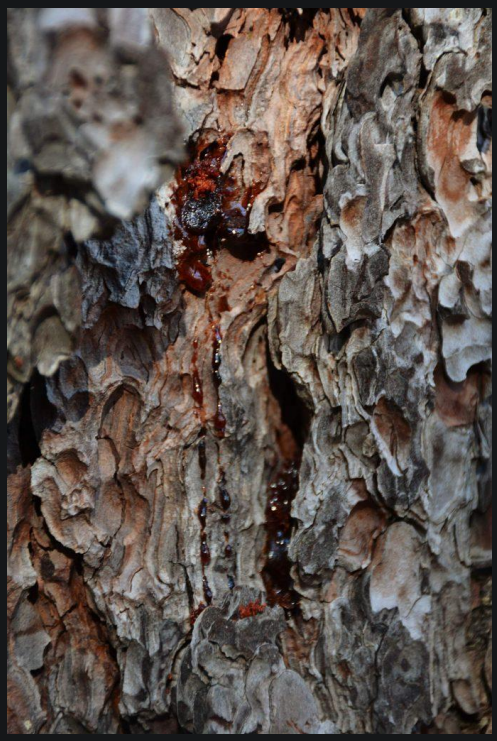

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As the trees in the basin try to thrive, factors continue to work against them as forests are changing. Trees are competing for limited water, stressed from higher temperatures and the infamous bark beetle population is still growing. While the Forest Service California Forest Health Protection had to postpone survey work to determine 2020 tree mortality due to the coronavirus, the trend of tree mortality has been on a downward trend. The years 2015 and 2016 were the hardest hit years. FHP's aerial detection monitoring reported 62 million trees dead in 2016. According to Forest Service Lake Tahoe Basin Management Unit Silviculturist Rita Mustatia things are "somewhat improving" since those rough years.

In 2018, 18.6 million trees were reported dead and in 2019, 15.1 million trees were reported dead which Mustatia says was a result of the lingering effects of the 2018's drought. These numbers of tree mortality are still high, but they do show improvement.

She also said that most of the mortality occurred in red and white fir trees due to the fir engraver beetle, a type of bark beetle. While these beetles are a measly 5 millimeters in length, they can wreak havoc on trees. The beetles lay eggs in the tree bark and the larvae feed off living tissues of the tree. When trees are healthy enough, they can produce necessary pitch to push and fend off these beetles, but as the tree's health declines so does their defensive mechanism of pitch. In a balanced ecosystem, bark beetles play an important role of killing older, damaged and weak trees to make room for healthy trees. However, drought has increased the amount of weakened, stressed trees giving more success to the beetle thus quickly increasing populations. According to the Forest Service, Bark beetles can kill a tree in as little as two to four weeks during warmer months. Mustatia says bark beetles are still active in areas around the lake but are worse in higher elevations. She said some areas are just worse than others. Tree mortality is more often in white and red fir trees because they are at higher elevations. "The pine stands at lower elevations have been showing greater improvement with less mortality," she said. While improvements point towards good news, we aren't out of the weeds just yet. Mustatia said, "Northern California is currently in another severe drought situation and this often sets the stage for increased insect and disease activity in the coming years, especially if the drought continues."

Source: https://www.tahoedailytribune.com/news/tree-mortality-on-decline-but-drought-conditions-continue/