

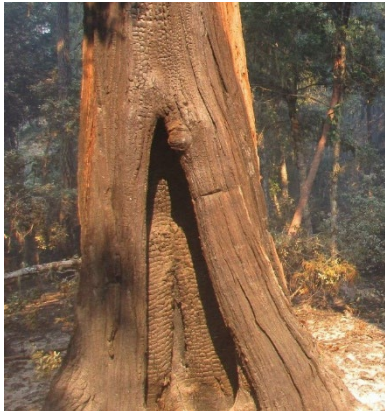


Pacific Northwest Wildfire Coordinating Group

-HAZARD TREE ALERT-

On August 18, 2022, while working on the Rum Creek Fire in Oregon, Logan Taylor was killed by a falling tree. The Serious Accident Investigation Team (SAIT) assigned to this accident asked that a Safety Alert be issued to increase situational awareness on the specific type of hazard tree involved in the Rum Creek fatality.

Based on information reviewed so far, the SAIT has confirmed that no actions were being taken on the tree that fell, and it appeared to be a green and live Douglas fir approximately 160 feet tall and 39 inches in diameter near the base of the tree. The tree fell from within the fire perimeter and struck the firefighter who was standing outside of the fire perimeter.



Fire-damaged trees (tree pictured was not involved in Rum Creek incident) have failure potentials that depend on the amount of sound wood remaining. Photo credit Rum SAIT.

The site was affected by fire following the incident. However, the SAIT documented two indicators of potential weakness at the base and within the first 20 feet of the tree, and the tree appeared to break from the base. Specifically, an extensive fire scar/catface on an adjacent (facing) tree had conks (fungus) within the first 20 feet of the trunk. The kinds of fire scars visible on surrounding trees illustrate that additional large trees had similar potential of falling even with relatively low or moderate fire behavior. These conditions likely exist with other trees within the fire area.

Indicators of green tree hazards may not be visible from all vantage points, unlike dead trees or "snags". Because the Rum Creek fire continues to be active and crews continue to work in the area, the SAIT wanted to increase situational awareness immediately to firefighters by providing factual information prior to release of the final report.

Important Reminders:

- The potential for tree failure increases dramatically with the combined effects of multiple defects. In the case of multiple indicators, one condition (indicator) often worsens another; they interact synergistically.
- Fungi and fruiting bodies (conks) found on trees may indicate massive interior rot. Excessive resinosis (resin flow) also indicates heart or root diseases.
- Border areas – Be aware and alert in border areas where fuel types change from grass to tree line or one stand age class to another. Clear-cuts and burn scars are other notable examples. These areas can make taller trees susceptible to higher wind exposure and potential damage or widow makers.
- Fire Scars – In the era of 'Mega-Fires', fire footprints are larger than ever, and salvage is not always an option. This can mean large areas of high snag ratios but also numerous fire-weakened trees that appear green in contrast to all the snags surrounding them. ANY tree in a previous fire scar should be considered possibly hazardous due to the stress that high severity fire can subject them to – opening the way for infections or other diseases to enter scar and weaken the tree.



*Typical conk of red ring rot *Phellinus pini* often indicates low-failure potential. Photo credit Field Guide for Hazard-Tree Identification.*

Remember, tree strikes to firefighters occur every year—there were 17 in 2021 alone. The majority did not have a chainsaw or felling component. The Wildland Fire Lessons Learned center has 148 search results tagged with #HitByTree, and tree strike fatalities are one of the leading causes of wildland firefighter line of duty death.



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References:

6 Minutes for Safety – Hazard Trees - [Hazard Tree Identification | NWCG](#)

Field Guide for Hazard Tree Identification – USFS R6 [stelprd3799993.pdf \(usda.gov\)](#)

Wildfire LLC on several Tree Strike Accidents- [Tree Hazards and Target Avoidance - YouTube](#)

Middle Fork Tree Strike FLA - <https://www.wildfirelessons.net/viewdocument/middle-fork-complex-hit-by-tree-fat>

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