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Comments:

The evolution of conifers, and of course the plants and animals that share their space, including giant sequoia have a long history, at least to the Triassic, 250 million years ago. To understand these trees it would help to learn as much as possible about the evolutionary processes that have created them. When plants first invaded the land out of the oceans, perhaps 430 million years ago there was very little oxygen in the atmosphere, and when they did take off, diversify and spread, atmospheric oxygen increased gradually (plants make oxygen), to possibly 35% at the beginning of the Permian Era compared to today's 21%. Anything much above 23% will cause increased flammability, ignition and spread of fire in woody vegetation, and 35% is off the chart, even wet wood burned, and the Permian onward was a time of intense fire.

(https://www.annualreviews.org/doi/10.1146/annurev-earth-032320-095425, go to figure 6 on page 18 to see the most currently accepted consensus estimate of atmospheric oxygen over geologic time) The genus sequoiadendron evolved then, as did all conifers. The end Permian extinction hits at 201 million years BP, most plants and animals are extirpated and atmospheric oxygen declines over 50 million years to generally above 25%, still a time of intense fire. Dinosaurs thrive and diversify, as do conifers, including ancestors of sequoia (coast redwood) and sequoiadendron (giant sequoia), the latter today central to the mission of Giant Sequoia National Monument and Sequoia National Forest.. Atmospheric oxygen again rises in the Triassic and Jurassic, approaching perhaps 30% until the dinosaur killing asteroid strikes at end Cretaceous, 66 million years, and the resulting global wildfire. Conifers and the Seguoiadendron genus survives. Oxygen declines over the next 10 million years to about what it is today or a little higher. Fossils of what is likely a near ancestor of modern Giant Sequoia is found in what is today the Western USA, dated to more than 50 million years BP. The Sierra starts rising 4 million years BP, and the Cascades 7 million years, eventually causing a rain shadow and more or less deserts to the east, wiping out the moisture loving sequoia and sequoiadendron west of the Sierra, isolating them here. The Giant sequoia, I don't think a fossil has ever been found, did fine with the fire, probably better than any other plants it grows with as witnessed by recent events, but struggled to find wet soil in which to thrive, hence the narrow locations they are found today.

The recent fires in giant sequoia groves shows that tree's capacity to survive and thrive in intense wildfire. Many trees died, it's true, but almost every living thing to ever live on earth is now dead. Nothing is immortal, including Giant sequoia. You hear oh, this tree was alive in the time of Christ, and it's true and that is a great inspiration and comfort to people. You don't hear this tree was alive at the time of the Egyptian Old Kingdom, because all those trees are dead, every last one of them. They survive not by living forever, but by reproducing, something the giant sequoia and its ancestors have been doing quite well for more than 200 million years and continue to do today.

You can read accounts by sequoia experts who once feared sequoias were headed for extinction because there were no young sequoia, only very old ones. Maybe the Indian burning, if it actually did make a difference, did in fact lead to frequent cooler fires, preventing most high intensity fires of the kind we recently saw, and preventing that abundant, almost astonishing, widespread regeneration of Giant Sequoia in most areas the Pier, Castle and Windy fires of 2017, 2020 and 2021 and other locations.

More than a hundred years ago public agencies, the US Forest Service, initiated a policy of universal wildfire suppression after a series of severe and widespread wildfires in the Western USA. It was a knee-jerk reaction, based more on politics than deep understanding. That action is now considered almost a catastrophe, and many believe that is a major cause of the recent large wildfires in California and elsewhere. Don't make the same mistake again. The extent and immediate destructiveness of the recent fires have perhaps rightly alarmed many and a course reversal seems to be taking place aimed at eliminating the extreme fires by many smaller fires, pile

burning, mechanical manipulation, cutting trees, thinning, etc. I wish you would take more time, consider the wider long term affects, move slower, recheck the results, consider the deeper nature of the trees themselves and accompanying environment. Consider the very long term, take the foot off the accelerator, use the existing NEPA process, think like a forest.

Thank you