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Foresters and ecologists see forests differently

GEORGE WUERTHNER 8 hrs ago

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There is a huge difference between the industrial forestry worldview and an ecological perspective. Many people assume that foresters understand forest ecosystems, but what you learn in forestry school is how to produce wood fiber to sell to the wood products industry. I know because I attended a forestry school as an undergraduate in college.

Assuming that foresters understand forest ecosystems is like assuming that a realtor who sells houses understands

how to construct a building because they peddle homes.

Foresters usually view ecological disturbance from insects, drought, wildfire and disease as undesirable and indications of "unhealthy" forests. That is why they work to sanitize forests by removing dead and dying trees and attempt to limit with thinning influences like bark beetles or wildfire.

An ecologist sees these disturbance processes not as a threat to forests, but the critical factors that maintain healthy forest ecosystems. Indeed, one could argue that natural mortality processes like drought, bark beetles or wildfire are "keystone" processes that sustain the forest ecosystem.

Where foresters seek to prevent large wildfires through logging/thinning or what can be described as chainsaw medicine, ecologists see large high severity fires as essential to functioning ecosystems.

Where foresters remove shrubs by mastication (chopping them up) to reduce what they call "fuel", an ecologist sees wildlife habitat. Indeed, one recent study found mastication reduced bird occurrence by half.

Where foresters seek to reduce tree density to speed growth, an ecologist seeks to maintain density to slow growth because slow-growing trees have denser wood that is slower to rot and hence lasts longer in the ecosystem.

Where foresters justify thinning to preclude wildfires, an ecologist notes that the probability of a fire encountering a thinned stand is extremely low.

Where foresters advocate logging to reduce "fuels" that they assert contribute to large high-severity fires, an ecologist sees high-severity fires as essential to the input of dead wood into forest ecosystems.

Foresters, who are joined at the hip with the timber industry, still promote the false assertion that logging can

preclude large blazes. Ecologists know that fine fuels drive fires, and under extreme fire weather of drought, high temperatures, low humidity and high winds, nothing stops wildfires.

Where foresters point to the few examples of where thinning is presumed to have halted wildfires without accounting for changes in weather conditions or other factors, ecologists know that extreme fire weather overrides all human suppression strategies. They look at wildfires like the Eagle Creek Fire in the Columbia Gorge which the Columbia River failed to stop, or the Thomas Fire in California which was only halted by the “fuel break” known as the Pacific Ocean to support their contention that wildfires are like earthquakes, you can’t prevent them.

Where foresters see wood fiber for the mill, an ecologist sees carbon storage on the ground. Indeed, even burnt forests store more carbon than thinned forests.

Where foresters believe they are "improving" the forest through manipulation, ecologists see manipulation as degrading forest ecosystems.

If our public forests were deemed nothing more than tree farms, the industrial forestry approach might be appropriate. However, since our public forests are often the critical habitat for many wildlife species, important for watershed and biodiversity protection, the industrial forestry paradigm simplifies our ecosystems and impoverishes our public forests.

In short, foresters pursue the industrial forestry paradigm, not an ecological paradigm.

I should acknowledge that there are some forward-thinking foresters who are not captured by the industrial forestry mindset, but they do not dominate in forestry schools, the Forest Service and elsewhere.