Get Wild: Aspens are our beauties and saviors

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Karn Stiegelmeier Get Wild



Green, golden and rust-colored aspen leaves are pictured Sunday, Sept. 19, at Salt Lick Gulch. Karn Stiegelmeier/Courtesy photo

September is the peak time for the glorious, brilliant yellow color changes of aspens. This year is as spectacular as ever.

Many have told me they have never seen so many orange aspens. My theory is that we have more young aspens than ever. We have many aspens growing in areas where lodgepole pines have died out the to the pine bark beetle. I was surprised that aspens can grow in so many of these locations. Aspens the ally grow in wetter areas, but they also get out-competed by pine, fir and spruce just because they are established and using the nutrients. After bark beetle losses, the aspens have come in, taking advantage of the nutrients available with the loss of conifers.

Aspens are named Populus tremuloides, meaning quaking aspen or trembling aspen due to the leaves quaking or trembling in the breeze because of their flattened petioles (attachment of the leaf to the stem), which reduce the aerodynamic drag of wind on branches. In September, we can observe this quaking with the breeze, creating a fluctuation of sunlight fluttering on the leaves. At lower elevations along the Blue River, we see the cottonwood tree, Populous deltoides, a close relation to the aspen.

Aspens are also able to photosynthesize through their bark, which is very noticeable in the spring when their white bark commonly has a green glow. One of the most fascinating features of aspens is the rhizomatic nature of their root systems. This means that the stems of aspens run underground and generate new shoots, generating many new trees and colonies of trees. When we see a particular group of bright yellow trees and nearby another group colored light green, we are seeing a colony of one organism of trees connected underground with another organism with slightly different colors next door. Individual trees may live for 50-150 years, but the connected root system of the colony can live for thousands of years.

Aspens have been able to take advantage of the bark beetle's attack on lodgepole pines. In Summit County, we have more young aspens than in recent years due to the aspens taking over some of these areas naturally. And these young aspens tend to be more orange than yellow this time of year. We also have some experiments with aspens being planted to take over areas for fire mitigation near developed locations for the protective advantage of aspens. They are also our saviors due to climate change and fire mitigation. They do not burn easily due to their high moisture content, and when they do burn, their roots respond with more root sprouting, creating even more trees.

For peak leaf peeping, the sunlight is important. The right light creates especially magical, bright yellow appearances among our mountains. There are many theories about why aspens turn colors when they do. Temperature has an obvious role. Moisture, especially soil moisture, is another. In the drought of 2002, our aspens were struggling with lack of moisture, fungal attacks and the lack of ability to flush out disease with moisture-laden sap. The leaf colors were less brilliant than usual. You will have to ask each colony of aspens to know what is really impacting them this year.

Aspen changes seem to have a different personality each year, and trying to figure out what they are responding to is an ongoing puzzle. They have centuries of experience and many mysteries for us to postulate about each fall.

Enjoy the beauty and mysteries of our amazing aspens while we await a big snowfall.





Karn Stiegelmeier

"Get Wild" publishes on Fridays in the Summit Daily News. Karn Stiegelmeier is a board member of Eagle Summit Wilderness Alliance, an all-volunteer nonprofit that helps the U.S. Forest Service protect and preserve the wilderness areas in Eagle and Summit counties. For more information, visit EagleSummitWilderness.org.

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