

Wild Wednesday 6 October 2021. Winners and Losers, by Walt Anderson

Every natural “catastrophe” has its winners and losers. Hot fires in the Yellowstone region, for example, killed the upright trees while releasing the seeds of Lodgepole Pines from their fire-adapted serotinous cones. Dams on the Colorado River that interrupted the natural flow regime harmed the native cottonwoods and willows that depended on periodic flooding but benefitted the introduced Tamarisks.

And so it is with the dramatic hailstorm with its hurricane-force winds that hit the Granite Dells in Prescott, Arizona on 11 July 2021. Windows and skylights were smashed, cars were totaled, and homeowners faced months of negotiations with insurance companies (possible losers) and contractors (big winners). Nearly every leaf was stripped from the native vegetation, and it looked as if a fire had raged through the landscape. I documented this on my 14 July 2021 Facebook post, “Persistence and Vision.” That essay showed the immediate effects of the storm damage but also celebrated the approval of the AED annexation that resulted in the saving of 474 key acres of natural open space in the Granite Dells.

Now three months later, it’s time for an evaluation of the outcomes of that incredible storm. Who are the winners, and who are the losers in this amazing ecosystem?



First, it was very fortunate that the hailstorm, arriving after months of unusual heat and drought, was followed by quite generous monsoon rains. Without those, I firmly believe the landscape damage would have been far worse. Grasses and forbs responded with luxuriant growth, and mosquitoes thrived!



Manzanitas were hard-hit, stripped of all leaves and battered with dents. Now three months later, some are showing strange clusters of leaves from the few buds that weren't pulverized. Manzanita is resilient to fire, for though the tops are killed, fire triggers germination of their seeds, and new manzanitas pop up to replace the old guard. The hailstorm did not trigger seed germination and left the manzanitas with greatly reduced photosynthetic machinery. I suspect that many branches will die. Some manzanitas will likely lose out in competition with adjacent scrub oaks, which leafed out well as they drew upon nutrient reserves in their underground lignotubers. So overall, I call manzanitas losers and oaks winners.



Another shrub, Cliffrose, which typically brightens our lives with two flowering periods per year, was shredded by the hail. Instead of small twigs bearing the evergreen leaves and flowers, the plant has put out its leaves in clusters from the main stems. Again, its photosynthetic capacity is now minimized, and it is likely that this will result in reduced growth and lower reproduction for some time; weaker individuals may well die out.



A close-up of a Cliffrose that shows the bark shredding and the emergence of little clusters of leaves from adventitious buds on the main stems.



Another species seriously victimized by the hailstorm is the Pinyon. There is almost no needle regrowth after three months despite all the rain. Pinyons and junipers in the West have already been damaged by drought and beetle infestations (climate change is having a major effect), and it would not be surprising to see this species wink out in the landscape in coming decades. Pinyons in the Dells and the general Prescott region that did not get hit by the hail still look decent (yes, you can see the difference of a pinyon), but it does show how vulnerable these plants may be.



Even more alarming to those of us who value the occasional stands of Ponderosa Pines in the Dells is the prospect of losing this kind of scene (taken well before the hailstorm). The pines took a horrendous beating and look like skeletons out there in the impact zone.



Here is a view of “Lizard Rock” with Granite Mountain behind as it was in February of 2021. Note the healthy pines.



And here is the same view on 3 October 2021, almost three months after the freak hailstorm. Notice any difference?



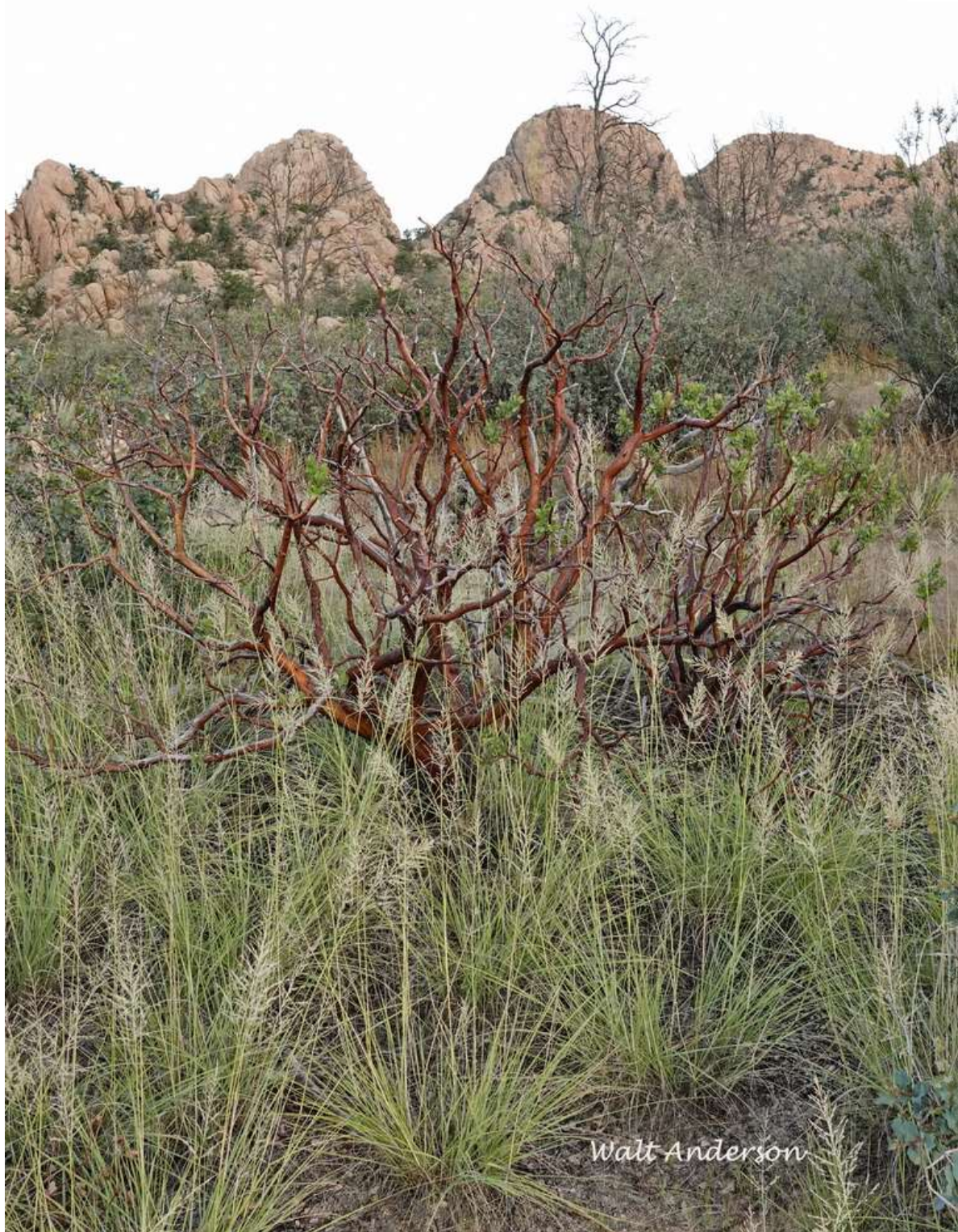
Another tree struggling to recover from the devastating storm is the Velvet Ash. You can see that the cottonwoods around it have leafed out fully (they were denuded too), but the ash is clearly still hurting.



Chokecherry is another loser. The entire tree was defoliated, and the only living parts are shoots coming up from the base. This will give it a multi-trunked, shrubby form rather than being a stately tree like it was before.



Even Wedgeleaf Goldenbush, a shrub tough enough to grow in cracks in the granite, was badly damaged. It is typically a late-summer bloomer, graced with lovely yellow composite flowers, but it gave up on that this year. It's trying to survive, and babies are not on the table this year (and, of course, tables are not the best places for its babies anyway).



Among the possible winners are some of the grasses, like this Bullgrass, thriving next to a struggling manzanita. Grasses were pulverized too by the hail, but the growing points of a grass are just under the ground, and the new grass could come up without having to deal with the old, bleached, nutrient-poor remains of last year's grass crop.



This meadow had been overgrazed by cattle and then flattened by the hail, but the ample rains more than compensated and produced this lush growth of grasses and forbs. Even better news is that this is part of the 474 acres saved by the actions of citizens engaged and informed by Save the Dells and by the vote of the Prescott City Council to achieve the win-win-win outcome that so many of us worked for over five years. This is now natural open space that belongs to all of us, and as AED builds its development outside of this valley and the Dells proper, cattle will be excluded from this lovely grassland. It's all because the citizens refused to be cowed by the "business as usual" approach that has so often in the past given in to the demands of developers. Hooray for citizen power!



Sunset on the beautiful valley that leads into the rich riparian area of Granite Creek. This view—this amazing landscape—is now protected. It is a vital part of our dream to expand the protected lands into a greater Granite Dells Regional Park & Preserve. We have momentum and strong public backing, and it is time to think big and protect as much as possible of the natural amenities that will really help Prescott and Yavapai County fulfill their potential as an outstanding place to live. I am ecstatic about this victory.



Just a little north of the previous scene is a pastoral view of grassland and stock pond, as observed from the Peavine Trail. With the victory just mentioned comes the trade-off that enabled the 474 acres of Dells land to be protected. This particular scene is slated to be developed by AED. Right now you can see the tight background development of “Walden Farms,” and AED plans to pack in a lot more houses in the foreground. This city will have to make some important decisions in the future to deal with the relentless demands for more development . . . and more of our limited water. The future of our community depends on wise land-use decisions, so there is still an important role for the citizenry to play.



The Granite Dells is a world-class landscape next to a rapidly growing metropolitan area. The Dells were hit by an unprecedented storm that stripped all the leaves from every plant exposed. The land is resilient, and nature is coming back, though in different proportions than before. If the land gets developed, however, natural resiliency is gone for good. We are celebrating the win in the AED annexation, but we need to continue to work to acquire more of this precious ecosystem for a truly magnificent (and ecologically functional) park and preserve.