

Nature Abhors a Vacuum

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Photo points are often recommended as a visual gauge to judge the effectiveness of management over time or to record changes over time. Normally these photo points are fixed in location with known markers such as using a single tee post so that someone can return to the exact same location for future photographs to capture the change in the location. Picture yourself pointing a camera at a patch of spring wildflowers and snapping a photo, freezing that moment in time. When you think about a landscape photograph these are actually single use photo points frozen in time. How many times have you taken a photo of a river, old homestead or other feature and wondered what it would look like if you could return and take another photo from that spot? More times than not, we aren't fortunate enough to follow up with additional photos of the same location in order to answer that question. I work within 51 counties of north central Texas and get to look at a lot of landscapes through the windshield as I travel from county to county. On July 19, 2013, I was passing through a Rolling Plains county noting that the area had recently received some much-needed rainfall. Sadly, I also noted that the predominant green vegetation visible across the horizon were mesquite leaves. The grasses were very short and brown. The reasons for the paltry grass and forb condition stems from the drought which began in 2011 and continued in many counties; it was also partly due to overgrazing and partly due to desert termites consuming dormant as well as green vegetation. I also noted that although water could be seen standing in low places in the rangeland, there had been a tremendous amount of water that had flowed across the land and had already gone downstream. All that remained to show for the decent rain was a line of debris two barb wires up on the low water crossing. The majority of rainfall that fell that day ran off the land and carried precious topsoil into the creeks, rivers and eventually into the nearby reservoir. Photos taken on this date at this location became a photo point frozen in time.

Almost six weeks later on August 29th I travelled that same road and noticed that the grasses were greening up at that location as were some unusual weeds that I wasn't expecting to see on this rangeland site. I stopped to take additional photos, and this is where not having a fixed photo point sometimes means that you aren't standing in exactly the same footprints when you activate the shutter. But in this case, you can see that the two photos were taken looking north at the same location, same fence posts on the left and same trees in the distance. What was surprising was the presence of Devil's-claw, *Proboscidea louisianica* at this site. Now most of the time we think of Devil's-claw as a weed in cultivated land and disturbed areas, seeing it commonly growing across this grassland reminds me of another old saying that would apply here: patience is a virtue. So, if nature abhors a vacuum then it is clearly true that patience is a virtue when applied to the length of time seeds of Devil's-claw can lie in the soil and remain viable. Though the land was being covered in vegetation that would not impress a rancher, nature was taking care of the land and attempting to revegetate the area. The seeds had germinated, producing plants which grew rapidly producing flowers and even green fruits – in six weeks. Those seeds produced in 2013 will likely lie dormant for many years waiting again on the opportunity to fill the vacuum. Makes you wonder if once again in a decade or so we will

be facing the results of drought and overgrazing and again discussing the emergence of Devil's-claw upon the rangeland. Following this record setting wettest fall in North Texas in 2018 I can see new plants of Devil's-claw showing up in odd places, though now it is having to hurry along to produce new seeds before first frost.

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Photo captions:

1. Initial photo point showing after effects of hard rain, massive runoff and few green grasses or forbs present on July 19, 2013.



2. Devil's-claw actively growing on 8-29-13 shows that nature will attempt to put a protective cover on the land.



3. Close-up of Devil's-claw showing large leaves, fleshy stems, flowers and green fruits.



4. A close-up photo reveals some legs inside the flower that are not plant based.



5 A large native carpenter bee backs out of the flower after enjoying the nectar and will soon carry pollen to the next flower.



6 Drought reduced the ground cover allowing precious runoff, soil and debris two wires tall to be lost from this land.



7 Much like landing lights at an airport, many flowers feature bright, contrasting colored lines or dots to guide pollinators inside the flowers



8 The devilish dried claws are notorious ankle-grabbers of man and beast. The large seeds are tasty and edible.

