

Cedar: More Complicated Than We Think.

Donnie Frels, Manager of the Kerr Wildlife Management Area, is fond of saying, “Nature is not only more complicated than we think, but it is more complicated than we CAN think”. I believe that certainly applies to the topic of cedar.

First let me dispel a few myths. We don’t really have any cedar in the Hill Country. It is actually a juniper (Ashe juniper in our area), which is in the same family as cedar and cypress. The fruit on the female trees that looks like a berry is actually, according to botanists, a “fleshy cone”. And cedar is native to the Hill Country as evidenced by the many accounts of the first explorers to the area in the early 1800s.

We understand the cedar or juniper tree (or bush if you prefer) quite well and there are certain things we know about it regardless of where it is growing in our area. But that doesn’t mean that the effect of cedar on the environment or ecosystem is the same wherever we find it. And that is where some of the misconceptions about cedar arises.

An individual cedar tree growing in a savanna interspersed with scattered hardwoods and with grass growing underneath the tree will have a very different effect on the surrounding ecosystem than that same species of tree growing shoulder to shoulder with other similar cedars on a rocky slope with no grass or any other vegetation around it.

Some cedars have little or no vegetation growing underneath, some have significant duff (dead cedar needles) underneath, some have good soil underneath, some have none. Small bushes have a very different impact on the landscape than large ones.

All vegetation intercepts a certain amount of rainfall before the leaves are as wet as they can be so that the remaining rainfall, if any, will reach the ground or leaf litter below. The larger the vegetation, the more rainfall it can intercept and different leaf types can also affect the interception.

In an ideal world, we would like for the all raindrops to hit the ground and soak in. Water in the root zone of vegetation is where plants get their essential water for photosynthesis and other functions. Water that seeps deeper underground is where the local water table is replenished and some aquifer recharge begins. If water doesn’t soak into the ground, none of these things can happen.

If there were no vegetation, all raindrops would hit bare ground, but raindrops hitting bare ground dislodges tiny soil particles, some of which will plug up pores in the surface preventing water from infiltrating into the ground. Water that doesn’t soak into the ground will run off downhill, carrying suspended soil particles with it—the beginning of erosion. As we lose soil to erosion, the remaining soil has less capacity to hold water and thus to provide the base for spring and seep flow to our creeks and rivers.

Cedar trees, growing in all of the different environments discussed above, affect the fate of rainwater in different ways. Likewise, the removal of cedar, how it is done, and what,

if anything, will replace the cedar, in the near term and in the future, will all affect the fate of raindrops in different ways.

So it is impossible to make the blanket statement that the removal of cedar will result in more rainwater soaking into the ground. In some cases, it certainly will. In other cases, the result may be more runoff and erosion. Some landowners, having been told that “cedar is bad and should be removed”, but who only have a few scattered cedars on their property, remove every one, thus accomplishing nothing but reducing the biodiversity of their habitat.

Large extensive cedar brakes are poor wildlife habitat and worthless rangeland. All existing cedars on any property are going to get larger with time and more new cedars will begin to grow on any property that does not practice some form of cedar management.

So there are certainly good land management reasons to manage cedar to some reasonable percent of the canopy for the sake of the future habitat, whether or not one assumes anything about the effect of doing so will have on rainwater infiltration into the soil.

It really is very complicated.

Until next time...

Jim Stanley is a Texas Master Naturalist and the author of the books “Hill Country Landowner’s Guide” and “A Beginner’s Handbook for Rural Texas Landowners: How to Live in the Country Without Spiling It”. He can be reached at jstmn@kfc.com. Previous columns can be seen at www.hillcountrynaturalist.org.