Where Are All The Little Trees?

A while back a neighbor of mine asked me, “Where are all the little trees? I just realized there are no little trees around my house, they are all mature oaks”. It was an accurate observation, and a good question.

Almost everywhere in the Hill Country, if you look closely at the hardwood trees, you will see that they are all mature trees, live oaks with trunk diameters of 6” or more, and the same holds for Texas red oaks (Spanish oaks), post oaks, Lacey oaks, chinkapin oaks and blackjack oaks. And it is not limited to oaks either, you probably won’t find any young escarpment black cherries, cedar elms or hackberry trees either. You may find shin oaks that are less than 6” in diameter, but they are naturally small and a 4” diameter tree is mature.

So where are the replacement trees for when these mature oaks die? Why are there no 3’ tall live oaks, 6’ tall Spanish oaks, or 2” diameter cedar elms? There is a one word answer, deer. White-tailed deer are browsers, which means they eat mainly the leaves of woody plants and some forbs (weeds and wildflowers). As the deer population began to increase after the eradication of the screw-worm fly in the 1960’s, they began to eat a larger and larger percentage of young tree sprouts until by the 1990’s there were very few young trees surviving. So, to paraphrase an old song, “Where have all the little trees gone/ Gone to white-tails, every one”.

You may ask how do we know that it is the deer that are responsible, and not goats, or climate change, or lack of fire, or something else. The evidence can be summarized as follows. We see a lack of young trees even on properties that have not been grazed with any livestock or exotics for many years, so these animals are certainly not the sole source of the problem (though they may contribute). We do see young trees of many species that happen to be growing on steep rocky slopes or over steep stream banks where deer cannot reach them. On properties where the population of white-tailed deer has been controlled to relatively low numbers for a long time, such as the Kerr Wildlife Management Area outside of Hunt, we do indeed see young live oaks and other hardwoods, both in areas where prescribed burning has taken place and where it has not.

Finally, if you will allow me a personal observation, since building our house about 10 years ago and enclosing about an acre around it with a fence to keep out the deer, we now have some 3’ high live oaks, many 3-4’ high escarpment black cherries, a 6’ high hackberry and a 6’ high Spanish oak….none of which can be found on the property outside the fence.

You may have noticed that I have been referring to this as a problem for hardwoods. This is because the same problem does not exist with cedar (ashe juniper). You can find all sorts of young cedar trees, from a few inches to a few feet high almost everywhere. So why is this problem observed for almost every other species, but not for cedar? Because cedar is very far down the list of plants deer most like to eat; they will eat most any hardwood plant before they will nibble on a cedar tree, and even then, they tend to leave the very young cedars alone.

So what does all of this mean? I expect that we have probably seen the maximum hardwood population in most of the Hill Country and that over the next few decades we will begin to see fewer and fewer of these trees. Having fewer trees is not necessarily catastrophic, there were fewer hardwoods 150 years ago than there are now.

But part of the problem is that a piece of the natural habitat is now missing, the mid-story vegetation, the shrubs and small trees that would naturally grow from the ground up to about 6'. This is the natural habitat for lots of birds and some other small animals, the black-capped vireo being one example. So basically, the white-tailed deer have not only destroyed a part of their own habitat, but they have also destroyed the habitat, cover and food source for a lot of other animals.

The deer have caused one other change in the appearance of our landscape; they have changed the shape of our trees. They have made them into lollypops, with nothing but trunk showing below about 5' (the browse line), and all of the leaves in a round ball above that. That is not the way our native trees would grow naturally, but that is too long a discussion for this week. Until next time……..

Jim Stanley is a member of Riverside Nature Center and the Native Plant Society of Texas, a Texas Master Naturalist and author of "Hill Country Landowner's Guide". He can be reached at jstmn@ktc.com