

Where Did Our Native Plants and Animals Come From? And How Can We Keep Them?

When one thinks about prehistoric time in central Texas, the end of the Pleistocene epoch and the last glacier retreat that occurred around 12,000 years ago comes to mind. Before the retreat of the glaciers, the climate in Texas was certainly much cooler and the vegetation different than what we see today.

Geologists think central Texas was primarily covered by tall grasses on the flatter areas and pine and aspen along the river bottoms and the climate was similar to some of the present-day Canadian provinces. During the Pleistocene, mammoths, mastodons, giant bears and saber-toothed cats inhabited the area, but these animals became extinct before the end of the epoch.

As the glaciers retreated, the climate warmed and plants and animals that previously had lived in areas south of here began to slowly expand their territory northward. Some species that had lived here in colder times were still able to thrive in the warmer climate and remained in Texas. And, in the 11- to 12,000 plus years since the end of the Pleistocene, still other species evolved as new species. So the native plants and animals here today are a collection of warmer climate species from southern areas, species that survived the glaciers and stayed, and new species evolved since the last glaciers.

But on a human-time scale, going back no more than to Columbus' time, anything that was here then (or evolved here since then) and is here now is considered a "native" species, and there are a lot of them. Something on the order of 30,000 invertebrates, 5,200 plants, 635 birds, 213 reptiles and amphibians and 174 mammals! Over 36,000 species of living things, and that doesn't even count bacteria, fungi and a number of other categories of life!

This is a tremendous biodiversity that we have inherited and one we should be protective of. We of course, in our short time here, have caused the extinction or extirpation of a number of species and have been responsible (intentionally or unintentionally) for the introduction of many non-native species as well. We have also destroyed much of the land that was once native habitat, but is now suburbs, shopping centers, roads, golf courses, lawns, and farms. This makes the remaining natural areas that are still capable of being habitat for our native species all the more precious.

When today's biologists, range managers, naturalists and landowners view a piece of property and assess the condition or health of the property and the habitat, one measure is how closely it resembles what we think it would have looked like before modern man arrived here. That is to say, how many of the plants and animals that

would have been on the land five or six hundred (or even 200) years ago are still here and what is their condition?

No part of 21st century Texas looks like it did back then, and we can't get it back now either—that would require getting rid of fences, and bringing back bears, wolves and bison, just to name a few things.

But that doesn't mean that we can't make parts of Texas in the 21st century resemble earlier times in terms of most plants and most animals and the general habitat. There are many examples throughout Texas of landowners who manage land that is about as close to our ideal condition as possible. It is a full-time, long-term job to do so, but those properties have about as complete a collection of native plants and animals as is possible today and the land is nearly as productive as it was back then.

These landowners are not only protecting the plants and animals that should be here from extinction and competition from exotics that should not be here, but are preserving the seed bank and the gene pool of the plants and animals that are our heritage.

Texas is blessed with about ten different ecoregions and we can boast to having more species of plants and animals than most other states. This biodiversity is part of what makes Texas unique and it is something we should all appreciate and do our part to protect. All landowners should view themselves as stewards of a little piece of Texas and its natural heritage, and thus feel an obligation to protect and preserve it—all of it.

For those readers around Kerrville, I am available at Riverside Nature Center, from 10 to 12 on Fridays to answer questions one-on-one or discuss nature issues.

Until next time...

Jim Stanley is a Texas Master Naturalist and the author of the books "Hill Country Ecology," "Hill Country Landowner's Guide" and "A Beginner's Handbook for Rural Texas Landowners." He can be reached at jstmn@ktc.com. Previous columns can be seen at www.hillcountrynaturalist.org.