

Is Our Land Healthy?

Healthy may not be a word commonly used to describe land these days, but the great conservationist Aldo Leopold used it in a lot of his writings in the 1920s, 30s and 40s. Leopold was also the first to use the term “land ethic.”

Here is a quotation from Leopold that ties land ethic to healthy land, “A land ethic, then, reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land. Health is the capacity of the land for self-renewal.” To Leopold, “land” means the soil, the rocks, the water, the plants, and the animals, including man.

Today, we might be more likely to use terms like ecosystem, or native habitat, to talk about what Leopold meant by “land.” Modern range scientists do sometimes rate the condition of a native habitat as being either healthy, at risk, or degraded.

So what are the characteristics of a healthy native habitat? I would say that the two most important characteristics are diversity and sustainability. Diversity refers to the number of native species of plants and animals in a particular area and sustainability means the collection of plants and animals can live together in the area long term without significant changes in the numbers of any one species.

Diversity is almost the primary requirement of any well-functioning habitat. The opposite of diversity would be a monoculture in which only one species of plants is growing. Think a wheat field or bermudagrass pasture. These places are poor habitat for most all native animal species, especially year round.

An ideal native habitat would be composed of as many different species of plants and animals as historically lived in that area as possible. It would also be free of any non-native species. Probably no place in Texas remains as a perfect replica of what it might have been before European man arrived.

The greater the number of species of plants, the greater the variety of food they provide for a greater variety of animal species. A diversity of blooming plants means something is blooming throughout the spring, summer and fall. This provides for a variety of pollinators which in turn provide food for many species of birds and small animals. The greater the diversity of grass species the greater the diversity of soil microorganisms, the greater the porosity and fertility of the soil. Different vegetation from low-growing vines to the top of trees provide homes for many species of animals.

Such a diverse habitat is only healthy long term if it is sustainable. Sustainable means that year after year the diversity as well as the numbers of the various species is relatively stable. The number of animals that eat a certain species of plant does not become so great that it wipes out that plant or so few in number that the plant becomes invasive and chokes out other species of vegetation. The number of predators does not increase to the point of exterminating any species of prey, nor does the predator

population drop so low as to allow prey species to overpopulate and destroy certain vegetation. Mother Nature manages to balance all of these things better than we do.

There is no question that there have been major changes in our native habitats since European man began to arrive in Texas, although the changes in the Hill Country and far west Texas are probably less obvious than other parts of the state that are more heavily farmed. But the parts of the Hill Country that are still in native pasture land would probably still be recognized by some of the early Texas explorers.

Certainly, most all parts of the Hill Country have been overgrazed in the past, and many are currently being overbrowsed as well. Cedar encroachment is certainly a problem for many properties. And the deer population is greater in most areas than 200 years ago. But much of the Hill Country is still an oak/juniper savanna and, not all, but most of the plants and animals that were here 200+ years ago are still here.

The good news is that there are many properties in the Hill Country that we would judge to be "Healthy," that are well-functioning native habitats with a diversity of flora and fauna not too unlike what it was in 1800 and with a demonstrated sustainability managed by good land stewards. And these land stewards are examples for all landowners to emulate.

Until next time...

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