

Land Fragmentation: What We Are Doing to the Hill Country

There is a principle in ranching called “carrying capacity”. Carrying capacity is usually defined as the number of livestock a given property can provide food, water and shelter for, long term, without degrading the condition of the property. In general, if the number of animals on the property is less than the carrying capacity, then the condition of the property may gradually improve, but conversely, if the number of animals on the property is greater than the carrying capacity, the property will become degraded and less productive.

People don't usually apply the term to humans, but a similar principle does apply. The Hill Country has a certain carrying capacity for humans, say, per square mile. In the old days, when most of the land was owned by ranchers who lived on the land and made a living from it, ranchers owned relatively large acreages and there were few people living on these large acreages. So while the rancher's livestock may have had a significant impact on the land, otherwise, the rancher and his family had a rather minimal impact on the land.

But a complex series of economic conditions has now altered the landscape. The rancher's property has become more valuable to other people as a place to live than it is to raise livestock. And there are many of these other people with money who want to live in the country. The result is land fragmentation. Large ranches where one or two families once lived are being broken up into many ranchettes where many families now live. The population density of the Hill Country has increased and continues to increase dramatically, and all of us who now live on small acreages in the country are the reason. We may be reaching, or have already reached, the carrying capacity for people in the Hill Country. We are degrading our habitat.

Where there was once, for example, one family living on 500 acres, when it is broken up into 10-30 acre lots, there may now be 25 families living on the same piece of property. The result is many more miles of roads, 25 times the square footage of impermeable surfaces (roofs, driveways, etc.) causing rainwater to run off, 25 times more water wells, more septic systems and more utility lines. These 25 families also require more governmental services (schools, fire and police departments, hospitals). In short, the human footprint on the land is drastically different than it was before.

Most all of us are aware of all of the above things to some extent. And while some of us may long for a lock on the gate at the entrance to the Hill Country, we know it is not going to happen and the population is going to continue increasing at a rapid pace—we think this is a great place to live, others will discover it too.

But land fragmentation has consequences beyond the issues discussed above. It also affects the health of the land and the quality of the habitat. As larger properties are divided up, new landowners put up fences which affect normal wildlife movements, they bring into the habitat free-ranging dogs and cats, they each have different ideas about land management, so severely overgrazed properties sit next to ungrazed properties, one landowner's management practices lead to increased erosion, silting in his neighbor's stock pond.

Some landowners will bring in exotic plants that are invasive and spread to his neighbor's land, others will bring in exotic animals which get loose and damage his neighbor's peach trees. One owner sprays herbicide to kill weeds and also kills his neighbor's live oaks. In short, the overall condition of the land and the health of the habitat is being degraded.

Of course, if all of us who have moved here because we love the Hill Country were to realize that we have a responsibility to ourselves and our neighbors to manage our little piece of it responsibly, then we just might be able to keep the Hill Country looking like the place we fell in love with. There is, I believe, some reason to hope that this is in fact happening. In short, let's not love it to death, let's all be the best stewards of the land we can be and Mother Nature will thank us for it.

Readers, you can now find past columns on my website, www.hillcountrynaturalist.org. Until next time...

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