By Thad Box

Who Listens to Rangelands?

Imagine a country about the size of the United States completely surrounded by water. About 85% of the people in that country live within 30 miles of the shoreline. Most of the remaining live in isolated communities or small cities where water is sufficient for limited agriculture. These people need financial support to provide education, public safety, and health services. Small businesses provide the commercial necessities of a civilized society.

Rainfall is low and varies greatly between years. Long droughts are common. Land between towns and cities was settled long ago by people from humid areas. They brought with them their traditions, biases, laws, livestock, pets, and plants. Much of the area was overgrazed at some point in time. Wind and water erosion removed topsoil from land that should never have been plowed.

Noncommercial exotic animals share the degraded land with livestock and native animals. Exotic plants litter the landscape. Climate change, increased fuel load from invasive plants, and high levels of human activity lead to frequent fires that change the appearance of the landscape and the productive potential of the land.

Public policy for the vast majority of the country's land is made by people who live in large cities and have never lived on agricultural land. They have much more knowledge about and more direct contact with people in other countries than they do with people in the remote reaches of their own country.

I write this from Australia, a country with some of the conditions listed above. But this is not about Australia. It is about the world's rangelands writ large to include people, as Aldo Leopold suggested, as a part of the land. Using an imaginary country similar to the United States, Canada, and Australia with relatively new invasions of nonnative people, low (by world standards) human population densities, widespread availability of technology, and a global economy allows us to look at rangeland community processes rather than get bogged down in individual species, any country's politics, or human actions.

Land too hot, too dry, too cold, or too high for crop agriculture or intensive forestry makes up about half of the world's surface. We Americans call them rangelands. Soon after I moved my 88-year-old father to New Mexico, I took him for a drive in the creosote bush desert. I told him that plant community in its present condition was stocked at 2 or 3 cattle per square mile. Dad replied, "This country ain't fit for nothing except to hold the world together."

That is the opinion of many people, including public officials elected by a majority of the people. But humans occupying such land make their living from it. Those not living there largely ignore it. Those that do have an opinion may consider it worthless, a nature preserve, or part of the nation needing help like a poor relative.

A position paper by Australia's Desert Knowledge group (Bruce W. Walker, Douglas J. Porter, and Ian Marsh, 2012, "Fixing a Hole in Australia's Heartland: How Government Needs to Work in Remote Australia") says the major problem arises from different views of the land. One set of views is centered on a desire to dominate and tame the space while the other lives in and adapts within it. We see that same condition on every continent.

There is no single name accepted worldwide for this land. Deserts, wastelands, grasslands, shrub steppe, pastoral land—the list is long and varies with cultures and different scientists. Most names were developed by geographers, geologists, or biologists to indicate some dominant natural feature. The American term "rangelands" developed to include humans and their economy as part of the land. It is used in the Americas, Australia, Africa, and parts of Asia where pastoral industries exist.

Science was slow coming to the world's "marginal" lands. Explorers mounted expeditions and described the flora, fauna, and the people. Those who "settled" the land brought practices and experience from humid areas. They were attracted by such slogans as "rain follows the plow."

In the United States the great cattle "die-up" of 1880s and the Dust Bowl of the 1930s caused the government to focus attention on scientific management of the land.

Land care professionals such as soil conservationists, foresters, wildlife managers, and range managers were produced. Trained as scientists, these new professions did not just do research to expand the knowledge base but also guided the application of knowledge to the land of which they were a part.

The term "Rangelands" is used by land care professionals to describe noncultivated land grazed or browsed by some herbivore, wild or domestic, native or exotic. But even within the area where such lands exist, the term rangelands is rejected by some people because the term relates to a "use"—animals eating plants.

Unfortunately, those who reject or criticize the term have put forth no alternative for a term that describes the community of plants and animals, including humans, that exist in the dry regions of the world.

This is probably because many people, including some scientists, have yet to accept the concept that human beings are part of the land, not beings created to dominate all aspects of the earth and its inhabitants.

The Leopoldian concept of humans as part of the land community is useful only when it is applied to a specific kind of land. If the land community is considered as the planet earth, the interconnections are too complex to fully understand, let alone manage. But if the earth is considered as many different land types, then the interactions within any land community are easier to comprehend. After we know the interconnections within a land type, then the relationship and interactions between the many land communities can be better understood.

To remove human use from the land is to reject *Homo sapiens* as part of the land. Social animals, from ants to human politicians, manipulate their environment to improve their condition. To place humans outside the environment they dominate is as unscientific as alchemy. And sustainable rangelands managed with science and policy from humid regions are about as likely as the transmutation of lead to gold.

It may be that the terms wetlands, croplands, rangelands, exurbs, suburbs, and cities are not the best names to classify different types of land, but they recognize the overriding impact the human animal has on its environment. As such, they are more useful for those seeking sustainable communities than the classifications used by geologists, biologists, and those in other "basic" sciences.

Our imaginary nation with its people concentrated in a few areas with low populations in between exists on every continent. The biology, geology, and climate interacted for eons to evolve particular kinds of organisms that are sustainable in such environments. For tens of thousands of years a single animal, *H. sapiens,* has had extraordinary impact on the land. Now, in every nation on earth, human communities in the more hospitable climates dominate the drier areas where hunters, gatherers, and pastoral people developed their relationship to the land.

When I was invited to write a regular column for *Rangelands,* I chose the title "Listening to the Land" because the future of human communities depends on lessons from the way we humans have used and misused the land. Now, in this global community where the effects of human beings in dense clusters may have more impact on remote regions that those of people actually on the land, we must listen more broadly.

I intend to think and write about this topic in future issues of *Rangelands.* I hope readers will make this a conversation about how science, policy, and politics of the dominant animal affects those lands too hot, too dry, too cold, or too high for crops and intensive forestry.

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