There Are Only 5

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With all the talk these days about grazing systems and the like, it seems it would be useful to return to the very basic things we do with our livestock on the land. There are only five (5) things we do with livestock on the land. None of these 5 items are truly independent factors—they all work together to have varying effects on the land.

The first thing we do is have stock there or not have stock there. This is GRAZE-REST. Nothing complicated—either there are stock on the land or there are no stock on the land. When stock are there, certain things will happen and other things won’t happen. One thing that happens when we allow stock to graze is the leaf surface is removed that might otherwise process sunlight for the plant. However, when we don’t allow grazing, the gut microorganisms are not there contributing to breaking down of the organic matter for faster incorporation into the soil.

The second thing is the SEASON when stock are or are not grazing. Seasons refer to any variation in weather, growing, or physical character. It can be hot season or cool season, growing season-nongrowing season, poison season-non-

poison season, winter-summer, etc. In linking together GRAZE-REST and SEASON, the effective rest on the land (and plants) will change by resting during the growing season. As an example, grazing all spring and summer and resting all fall and winter in the Northern Rockies doesn’t allow for much in the way of effective rest for plants and has a different effect than does resting all spring and summer and grazing all winter. Effective rest is occurring when plants can process sunlight to their own advantage.

The third thing and possibly the most neglected, at least until recently, is the length of time stock are on the land or not on the land. This we’ll call DURATION. There is a lot of discussion these days about the pros and cons of short-duration grazing. I believe it is more appropriate to look at the flip side of this item and think in terms of duration of rest period. Duration of the resting period during the proper season is what makes the rest effective or ineffective.

The fourth item we manipulate is DENSITY. This is the number of animals per unit area regardless of anything else. When livestock are increased or decreased without manipulating anything else, density is being adjusted. For a long time in range management it was believed that simply chang-
ing the number of stock would solve the land resource problem; we know better these days. Rarely does density in itself represent a problem, but when linked with duration of grazing during specific seasons, some abuses can occur, but abuses are more likely to be corrected by changing the duration not the density.

The last item we manipulate is the kind and class of livestock. This item can function independently in that different animals have different behavior patterns, diet, and management strategies which cause different effects on the land. Changing kind and class of stock probably isn't going to be done very regularly for land resources, but maybe ought to be considered more often than it is. My favorite way of thinking about this is to ask: "Are we adjusting the land to meet our animals, or are we adjusting our animals to meet the land?"

In any circumstance of manipulating livestock on the land, we are in one way or another manipulating one or more of these items. Now we only need to concern ourselves that we are adjusting what needs to be adjusted to meet our objectives. If season or resting is the problem, changing density isn't likely to solve it.

Endangered Species—Something Real, Something Phantom

Lee E. Hughes*

The two men walked out through badlands from a spring in the cliffs. They walked in a straight line and then stopped. They milled about as they watched something on the ground. The two veered to the right and soon resumed the straight line.

"Those cactus are endangered," said the ranger, "and we can't run the pipeline through the colony."

"Hell, I see that cactus all over," said the rancher.

"We do too," answered the ranger.

"How did it get listed endangered?" asked the rancher.

"You don't want to know," answered the rancher jokingly.

"It got listed by proponents who claimed it was endangered. They appealed to the Fish and Wildlife Service here several years ago with some limited data and the Service made it an Endangered Species."

Whoooping cranes, black-footed ferrets, peregrine falcons, and grizzly bears are endangered. With these and many other plant and animals, there is little argument that at one time or now they are threatened with extinction throughout or in a significant portion of their range. However, there are the other species. They are on the endangered listed of the U.S. Fish and Wildlife Service and they are bleeding its credibility. These are the ones you do not read about.

Many plant and animal species are restricted to certain soil types and weather regimes and are rare but are neither endangered nor threatened. They may be listed by the U.S. Fish and Wildlife Service as endangered or threatened but they lack the quality of being threatened or endangered.

The definition for threatened and endangered in the Endangered Species Act is as follows: threatened means "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range;" endangered means, "any species which is in danger of extinction throughout all or a significant portion of its range."

How did these species get on the list? In the late 1970s, many species were hastily listed with little factual data. Many stories tell how it happened. One story, for example, tells of botanists researching botanical taxonomic textbooks and proposing as candidates, plants listed only in one county. Little money to research candidates prevented adequate data from being gathered also.

Many of these species have meaning only to specialists in various biological fields, who fear destruction of species and their habitats by the blades of crawler tractors, the hooves of cattle, or the knobby tires of all-terrain vehicles. The gap between the fear of what could happen and what really occurs is wide in the case of some species. The fact that only a few individuals have working knowledge of many of these species makes it difficult to get a balanced view of the real threat to the species.

An Experience

The Arizona Strip of northwest Arizona had two cactuses listed as endangered in 1979: Pediocactus sileri (P. sileri) and Pediocactus bradyi (P. bradyi). The data gathered in 1979 on both species could be described as microscopic. Some locations of these plants were known, as was the soil they grew on and an estimate of their number. The threats to both cactuses, however, were largely opinion.

The status report on P. sileri showed that its authors had measured 36 plants but estimated that fewer than 1,00 individuals remained. The authors claimed that strip mining of gypsum was a threat because the cactus grew on gypsiferous soils and gypsum is mined on the Arizona Strip. A mining

*Views and opinions are the author's own.