published in the "Journal of Range Management," he compared ranches with wilderness grazing allotments with ranches with similar types of allotments on non-wilderness areas from 1964 to 1984.

In his analysis of Forest Service behavior, McClaran found that wilderness designation was not followed by reductions in permitted livestock use by livestock. "Instead there was a slight increase in stocking in wilderness relative to non-wilderness allotments," he says. This demonstrates a lack of bias against livestock use on the part of the agency.

He compared the actual use of allotments by ranchers with the stocking rate allowed by the Forest Service and discovered no difference.

"Changes in permitted cattle numbers and in rancher willingness to use their full stocking opportunities appear to be independent of the proportion of an allotment in the wilderness, or the allotment size and location," McClaran says.

The one significant difference he found related to turnover in ownership of the permit allowing the rancher to graze livestock on these allotments.

"The average permit for allotments with some wilderness had at least one ownership change from 1965 to 1984," McClaran says. In the Tonto National Forest, 5 out of 12 permits changed hands two or more times. In the Coronado National Forest 5 of 8 permits have had a similar level of change.

"There is evidence that the expectations of newer owners may not always be met," McClaran concludes. "This suggests that the expectation of ranchers with some amount of wilderness in their allotment may not be reached, but because there has always been a rancher willing to purchase these allotments, livestock grazing in the wilderness has continued."

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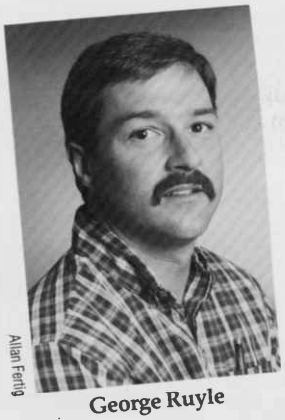

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George Ruyle

OVERVIEW

Arizona's Rangelands

By George Ruyle

Arizona is a land of wide topographic variety, largely dominated by rangeland, which makes up approximately 85 percent of the land area. Rangeland is a kind of land, not a definition of a particular use. These vast areas are primarily grasslands, shrublands, woodlands, open forests and some deserts.

Vegetation and soil types are as diverse as the complex land ownership patterns. The wide variety of environmental conditions, roughly expressed as interactions between elevation and precipitation, result in innumerable combinations of plant species and of the animals that depend on the plants.

In a general sense, the lower-elevation areas of the state usually get less than 10 inches of annual rainfall and support desert scrub-type vegetation. As elevation increases, with higher precipitation and cooler temperatures, the amount of effective moisture also increases. The vegetation changes successively to grassland, woodland and forest — providing wildlife habitat, forage for grazing animals, a source of water and watershed, recreational opportunities, and simply, open space.

In a more global view, rangelands are critical as human habitat, and they serve as an environmental buffer.

The majority of Arizona rangelands are not privately owned. To begin with, only about 18 percent of Arizona land is held by individuals or corporations. The state owns 13 percent of the land; Native American tribes own 26 percent; and the federal government owns the remaining 43 percent. The percentage of privately owned rangeland is even smaller since much of the private land is urban or farmland.

This pattern of ownership requires considerable coordination and cooperation among owners to properly manage rangeland resources.

The management of publicly held natural resources increasingly has come under the influence of federal and state legislation and under the scrutiny of special interest groups and the interested public. Federal land management agencies are required to seek public input before acting on resource management plans. In Arizona, citizen's groups are actively taking part in the public land management arena, and they represent a wide variety of viewpoints.

Perhaps the most recognizable use of rangelands is as an important source of livestock forage. Range livestock production in Arizona originated with the 16th Century Spanish explorations; it continues today as one of the most widespread uses of the state's rangeland. In fact, cattle production is the single most important agricultural commodity in the state, in terms of cash receipts.

Historically, Arizona's rangelands were grazed by livestock as an un-managed commons. Such uncontrolled use was later regulated as a system of grazing allotments under a permit system. Today, public and state grazing permits and leases account for more than 85 percent of the grazed areas of the state.

The disturbance to rangelands caused by unrestricted livestock grazing has largely been reduced through applying ecologically sound management practices. Environmental standards for livestock grazing are increasingly being developed and applied to ensure that these lands continue to meet growing demands for wildlife habitat, water production and recreational opportunities — in concert with producing food and fiber.

People have always had differences of opinions about publicly held resources. However, if Arizona rangelands are going to meet the diverse needs of the state, an improved understanding of ecological processes must be applied through appropriate management practices. Federal and state policy, market forces and public input will ultimately determine the mix of resource uses.

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