Stewardship on the Plains

After the sale of his family farm in Illinois some 25 years ago, Jim Weaver acknowledges mournfully, "It was a feeling I'll never forget. I cannot begin to imagine what fourth-generation ranchers must feel when they're faced with the reality of having to leave the land. I felt an emptiness because I didn't have that place I could call my own, that place where I had grown up, that place I had come to understand. I didn't fully appreciate how attached I had become to that land."

Years later, determined to provide the best environment for his family, he returned to the land, this time in eastern New Mexico about 40 miles (64 kilometers) south of Portales. Today, his property is a 15,000-acre (6,000-hectare) ranch of mid- to tall-grass prairie that supports about 350 head of Mashona cattle. It also supports a healthy and diverse wildlife base, including the lesser prairie-chicken *(Tympanuchus pallidicinctus)*, black-tailed prairie dog *(Cynomys ludovicianus)*, ferruginous hawk *(Buteo regalis)*, burrowing owl *(Athene cunicularia)*, and dunes sagebrush lizard *(Sceloporus arenicolus)*.

Weaver is working voluntarily with the Fish and Wildlife Service for the



by Ben Ikenson



The lesser prairie-chicken has been called "the little grouse on the prairie."

Except where noted, photos are courtesy of Grasslans, a charitable foundation established to support habitat conservation for species at risk

Jim Weaver's ranch supports crops, cattle, and wildlife. "Landscape restoration is the only thing that will work in the long-term," he says. "What is good for the prairie-chicken is good for the prairie dog — and it's good for the ranch and the family, too." Southwest ranchers like Mr. Weaver are striving to deal with a 10-year drought, interrupted briefly by a couple of "good springs," he said. "Our 'chickens' are starting to come back, but we've only had one normal year."

Controlling Shinnery Oak: Good or Bad?

In one of the first extended studies of its kind, Jim Weaver has arranged for a 10-year scientific research project on part of his land to determine the impact of short-term herbicide use on plants and wildlife.

"Biologists have been monitoring prairie-chickens here for some time," says Weaver. "The application of Tebuthiuron last fall to control shinnery oak and help restore the native tall- and mid-grasses should benefit the chickens and a range of species, but biologists will be checking vegetation composition, available plant cover, soil moisture, seed and herbaceous production, and populations of birds, mammals, reptiles, and insects to make sure."

Shinnery oak *(Quercus bavardii)* is a low-growing, rhizomatous shrub that can grow into dense stands. Weaver terms it a "water-robber," noting its ability to absorb and store water in its vast root system at the expense of native grasses around it. "In years when we only get five inches of rain, the grasses really suffer."

Some conservation groups have questioned the use of an herbicide with potentially detrimental effects to wildlife such as the lesser prairiechicken. Their concern was the further decline of this and other members of the prairie ecosystem, including the dunes sagebrush lizard.

After the experience on the Weaver ranch, the Natural Resources Conservation Service has a new policy of costsharing with eastern New Mexico ranchers to control shinnery oak with the herbicide, provided that 40 percent or more of their land is covered with the brush. The agency also is focusing on incentive payments to ranchers to defer grazing some pastures in favor of wildlife habitat. "This is a big move on their part," says Chuck Mullins, the New Mexico coordinator for the Partners for Fish and Wildlife program. "We are encouraged by what we can accomplish together."



Biologists at the nest of a lesser prairie-chicken on the Weaver Ranch near Causey, New Mexico

conservation of sensitive species through the Partners for Fish and Wildlife program. It came as no surprise that Weaver signed up for the program. Wildlife has been important to him throughout much of his life. While a researcher at Cornell University's Laboratory of Ornithology in Ithaca, New York, he co-founded The Peregrine Fund, an organization dedicated to preserving the peregrine falcon (Falco peregrinus) and other birds of prey. Thanks to the hard work of the Fund and its partners, including the Fish and Wildlife Service, the peregrine recovered and was removed from the endangered species list in 1999. Peregrine falcon recovery has been a model for cooperation and hands-on management of imperiled wildlife and their habitats.

Today, Weaver is largely occupied with managing his livestock and land. He does so with the conviction that the future of both ranching and wildlife management hinges on good science and responsible landowners. Weaver may not be a fourth-generation homesteader, but he does understand the traditions of ranching and the values they represent. An advocate of holistic ranching, he enjoys a lifestyle that keeps him close to the land, a lifestyle that some people fear could become as endangered as some of the species that once thrived on the range.

Weaver and other landowners in Oklahoma, New Mexico, and Texas are working to improve 80,000 acres (32,375 ha) in the southern High Plains. For example, ranchers have installed watering facilities or fencing or have replanted native vegetation to benefit candidate species such as the lesser prairie-chicken. "It's not an overnight fix," says Weaver. "It will require at least 50 years to restore healthy water and nutrient cycles to some of these lands. It is most important that we start now."

How can conditions be improved? Biologists hope that by systematically addressing the needs of such vulnerable or listed species as the mountain plover *(Charadrius montanus)*, long-billed curlew *(Numenius americanus)*, grasshopper sparrow *(Ammodramus savannarum)*, burrowing owl, swift fox *(Vulpes velox)*, black-footed ferret *(Mustela nigripes)*, and black-tailed prairie dog, the High Plains the ecosystem will eventually be restored.

Adequate nesting cover is an important limiting factor for the lesser prairiechicken, which requires standing dead grass at least 20 inches (50 centimeters) tall in which to nest each spring. To promote this, ranchers typically rest some areas from grazing late in the growing season, a practice that can improve the overall condition of the range and, ultimately, its profitability. Biologists from the Natural Resources Conservation Service and the Fish and Wildlife Service will help participating ranchers implement conservation practices to create a mosaic of nesting habitats.

Over the long term, Weaver said, practices that prove to be good for wildlife are also good for the ranching operation. "Additionally, one of the more obvious benefits to the landowner is that eventually, if ecosystem conditions improve, species will not require protection under the Endangered Species Act. Listing species as endangered or threatened indicates that ranchers, as well as scientists and environmentalists, have failed at their respective duties. We want to get ahead of the curve."

Weaver has offered his ranch as a demonstration site for some of the programs and techniques at work. He has also traveled to Washington, D.C., on behalf of a variety of regional ranch conservation programs. "Environmental Quality Incentives Program, Wildlife Habitat Incentives Program, Wetlands Reserve Program, Conservation Reserve Program—actually a lot of good resource management programs are available in the area but are badly under-funded." He adds, "If we can just get people from all sides of the issue to support the under-funded programs, there are few things that we can't accomplish."

Like his neighbors, Weaver has a vested interest in taking care of his land. He wants give his grandchildren the chance to enjoy the kind of lifestyle that he has become so attached to through the years. "Living this kind of life should be an option available down the road. It's a good life. Human closeness to the land and its nonhuman inhabitants is necessary to the survival of both."

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Wetland restoration at the Weaver Ranch



U.S. Fish and Wildlife Service biologist Ken Williams releases a lesser-prairie chicken after gathering biological data. USFWS photo



Male lesser prairie-chickens inflate orange sacks on the sides of the neck and perform elaborate "dances" during breeding season in an effort to attract a mate.

Photo courtesy of Outdoor Oklahoma

The Partners for Fish and Wildlife program helped fund the first-year project to renovate grasslands by planting. The next year, ranchers made a \$50.000 challenge grant that the **National Fish and Wildlife** Foundation matched. The Western Governors' Association provided \$12,000 as part of the High Plains Partnership for species at risk, a cooperative five-State initiative with private landowners. With continued financial support, farmers and ranchers like Jim Weaver can continue the landscape effort. "We think the conservation partnership is a pretty big deal. In time, it will provide the solution by saving our natural heritage—and a way of life that we treasure."