

BIG GRASS IN ALL ITS GLORY: *The Gyp Hills*

By Rob Manes & Ruth Palmer Photos by Ken Brunson



The Red Hills region of south-central Kansas, also called the Gyp Hills due to its exposed and buried gypsum deposits, features wildly diverse animal and plant communities and a strong ranching tradition. These two assets—cows and wild critters—have persisted together in this landscape for about 150 years. Today, some wild animals that could be headed toward extinction elsewhere find a stronghold in the Red Hills. Many of the people of this south-central Kansas region have long earned their living from cattle grazing and associated enterprises. It turns out that much of the conservation work ranchers do to maintain productive grazing lands, also helps to sustain ecologically healthy prairies.

Ecologically speaking, the Kansas Gyp Hills landscape extends into north-western Oklahoma and the Texas Panhandle. From northeast to southwest, it is dominated by mixed-grass prairie, then shinnery oak communities, and then sand-sage prairie. Much of this region is dissected by spring-fed streams, red-walled canyons, white gypsum outcrops, dramatic topography, and—most of all—big grass . . . in some places, as far as the eye can see.

The Red Hills even rival the Flint Hills for vast prairie and scenic grandeur, containing many of the state's most pristine, or "Heritage" streams, as designated by the Kansas Department of Health and Environment. Many experts report that the region has possibly the highest concentration of undisturbed natural creeks and rivers, a feature that is missing in much of Kansas' landscape. The Red Hills' untainted streams eventually flow into the Medicine Lodge River, the Cimarron River, or the Salt Fork of the Arkansas River. The same grazing land stewardship ethic that drives landowners to conserve native grasslands often restores and protects natural waters. Like the abundant native grasslands that purify the streams' inflows, these grass-banked creeks and rivers are home to a rich diversity of wildlife—fish, amphibians and reptiles. Notable species found in the area include the checkered garter snake, red-spotted toad, southern prairie skink, Texas blind snake, longnose snake, and night snake.



The Gyp Hills area is ecologically important in Kansas, in the simplest sense, because at roughly two million acres, it is the state's second largest, intact native prairie region (second only to the Flint Hills). As such, it is home to some high-priority wildlife populations that require large, unfragmented tracts of native prairie for their survival, including the lesser prairie chicken and other grassland birds. In addition to the emphasis placed on the Red Hills by grazing enterprises, the region has gained ecological acclaim from organizations like The Nature Conservancy and Kansas Biological Survey. Further, the Kansas state wildlife and environmental health agencies, and the United States departments of Agriculture and Interior, have officially recognized the importance of this unique mixed-grass prairie region.

The lesser prairie chicken is a controversial candidate for protection under the federal Endangered Species law. Lesser prairie chicken numbers have declined almost 90 percent since the 1800's. It is one of the highest priority conservation targets in the five-state region that encompasses the species' range (parts of Kansas, Oklahoma, Texas, Colorado and New Mexico). Importantly, conservation of lesser prairie chickens is compatible with, and complimentary to, economically viable livestock grazing in the Gyp Hills. Ranchers' efforts to remove cedar trees (a native plant formerly confined by wildfire to canyon walls, wet areas and rocky outcrops) are often aided by USDA programs. This work may be aimed primarily at stemming the annual loss of hundreds of millions of dollars in grazing value, but cedars are bad for prairie chickens and other grassland birds. Prescribed fire, well-managed grazing, and even costly mechanical cutting are weapons in the war on aggressively spreading cedar trees of the region. The success of these strategies is important to prairie chickens, as research shows that even one mature cedar in a quarter section of prairie can displace the birds from otherwise top-quality habitat. The cedar-killing strategies are important to cattle producers, as illustrated by an

Oklahoma State University study which estimated cedar-related forage and water losses at nearly a quarter billion dollars annually. Another OSU study reports that a single acre of cedars can absorb 55,000 gallons of rainfall annually from soils and streams; thus the trees pose a threat to rare fish, such as Arkansas River shiners and Arkansas darters.

The Red Hills are unique to Kansas because of the underlying gypsum deposits and the number of caves that result from the erosion of water moving below the surface. Most of the caves that exist in Kansas are located in this region, primarily in Barber and Comanche counties. Accordingly, the area is considered to be Kansas's most important region for bat hibernacula. Like getting rid of invading cedar trees, keeping bats happy and healthy serves the interests of people. Bats are important insectivores, which reduce crop damage, disease, and human suffering. Individual bats of some species can consume as many as 6,000 mosquitoes in a single night's foraging. Ensuring that gypsum mining (largely for wallboard manufacturing) and oil and gas production is carried out with knowledge of the location and protection needs of the region's caves, is a primary strategy for guarding the millions of bats that grace the Red Hills' night skies.

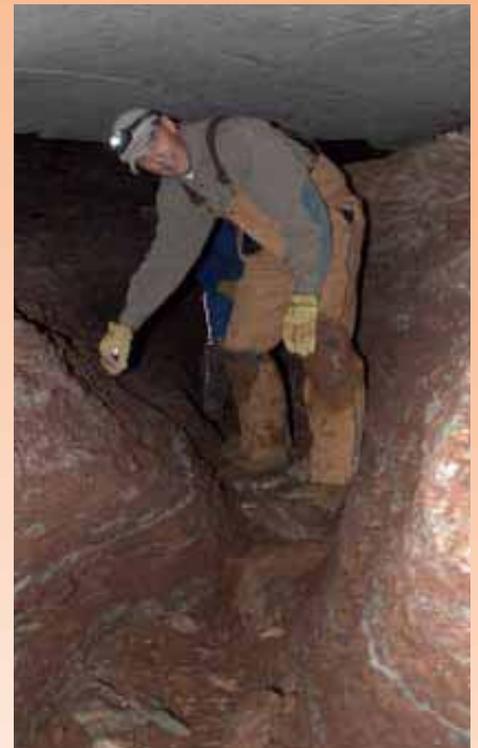
Other threats to the ecological and economic well-being of the Gyp Hills are significant, but probably lag behind the cedar tree invasion. Land subdivision for ranchettes, poorly sited energy development, pasture-to-tillage land conversion, and mining—are all valid land uses, but they often compete with long-term ranching and ecological interests. Many of these threats can be abated by cooperative strategies involving private landowners, conservation organizations, and representatives from industry, including oil and gas producers, mining companies, wind energy developers and electrical transmission authorities.

Like many landowners and organizations, The Nature Conservancy of Kansas has been working on a set of strategies for Red Hills conservation. These may include accepting, from willing grant-

ors, conservation easements on the most ecologically important lands. In concert with USDA, the Conservancy is also supporting and promoting prescribed burning, stream recovery, grazing research, and sound energy development and transmission siting.

The Gyp (or Red) Hills are still economically and ecologically vigorous, and even the drought can't mute the area's grand natural beauty or the rich wild heritage that brings the landscape to life. Critically, the people who live and work there mostly understand what they have in the caves, the creeks, and big grass that surrounds them. A Sunday drive along Highway 160 through Barber, Comanche and Clark counties—or down Highway 281 into Oklahoma—is generally enough to convince even the casual observer that the Red Hills are worth the effort. 📍

Kansas' Nature Conservancy Director Rob Manes is a 30-plus-year conservation professional. A graduate of Kansas State University and Friends University, his home town is Pratt, Kansas. Rob presently resides in rural Wabaunsee County with wife Stephanie, has two grown daughters and a son and daughter at home



Rob Manes (Director, The Nature Conservancy of Kansas)

