

Information on Burns From TPWD Technical Guidance Biologist and a well-known Texas Master Naturalist:

"In my experience, including a wildfire on the Chaparral WMA a few years ago and a fire in Jack County last month, the effects of your fire will most likely be very similar to a prescribed fire. In some cases, like the fires in N. TX in spring 2009 and ones several years ago in the panhandle, wildfires can burn hotter and burn greater amounts of vegetation which can change the appearance of the landscape, but still results in positive changes with respect to rangeland health and wildlife habitat. I think you'll have nothing to worry about...chances are everything will be much better after the fire and some moisture."

"Several reasons burning is good:

1. It is the cheapest, easiest and quickest way to kill younger cedar bushes before they become larger more problematic bushes;
2. If heavy thatch builds up to the extent it prevents grass or forb seeds from germinating and begins to crowd out smaller grass species, then burning removes the thatch and rejuvenates the range;
3. The resulting ash contains ALOT of nutrients so the burn gives rise to a fertilization effect;
4. Burning results in much greater vegetation diversity by stimulating many species that are dormant or not common before the burn.

The bottom line is burns help to control brush and give rise to healthier, more diverse habitats...and almost always leads to a more productive range."

LONG RANCH - STONEWALL AND KING COUNTIES, TEXAS



Direct from TPWD Website section covering Stonewall County Suggested Habitat Management Practices:

Bison were not the only force shaping the system in which pronghorn antelope, black bear, wolf, white-tailed deer, turkey, quail, and prairie chicken thrived. Fires, natural and man-made, played an integral role in managing that system. Since the 1850s, man has suppressed fire, and the grasslands that were once dotted with an occasional mesquite or juniper have been replaced by parklands and woodlands. Redberry juniper has spread from the steep draws and canyons and exploited the uplands.

A prescribed burn program that is used properly with a grazing deferment program and deer harvest management, is an effective tool for managing wildlife habitat. Burning increases plant quantity and quality, and enhances habitat diversity. Many plant species are tolerant of fire. Others require fire for adequate germination. Juniper is not a fire tolerant plant. It was controlled by the frequent wildfires that occurred before European settlement. Europeans suppressed fire to prevent damage to wooden structures, farmlands, fences, and grazing lands. That eliminated or reduced the role that fire played in maintaining an ecosystem that was not dominated by juniper or mesquite. Formerly restricted to steep rough areas where fire couldn't reach, juniper is rarely eaten by deer or livestock and quickly invades all sites in the absence of fire.

Burned pastures can be grazed immediately to reduce grasses that compete with forbs, then deferred to allow the pasture to rest. Browsing wildlife species numbers may have to be reduced prior to burning to allow preferred plants to reestablish following prescribed fire. Portions of the property should be left in permanently unburned cover to insure that plants intolerant of fire are part of the ecosystem diversity. A burning schedule should be maintained to give priority to burning in the winter and early spring before green-up.

LONG RANCH - STONEWALL AND KING COUNTIES, TEXAS

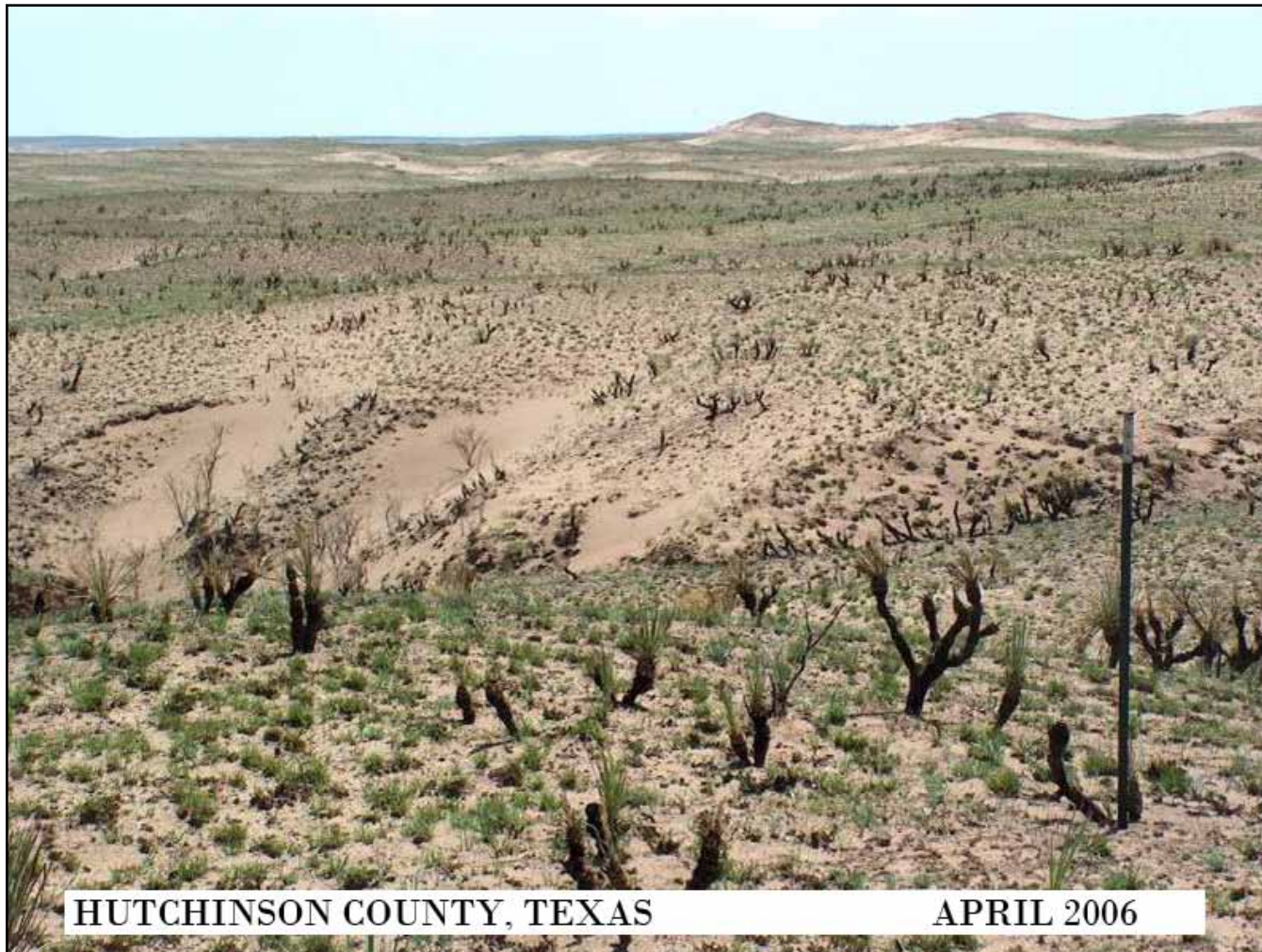
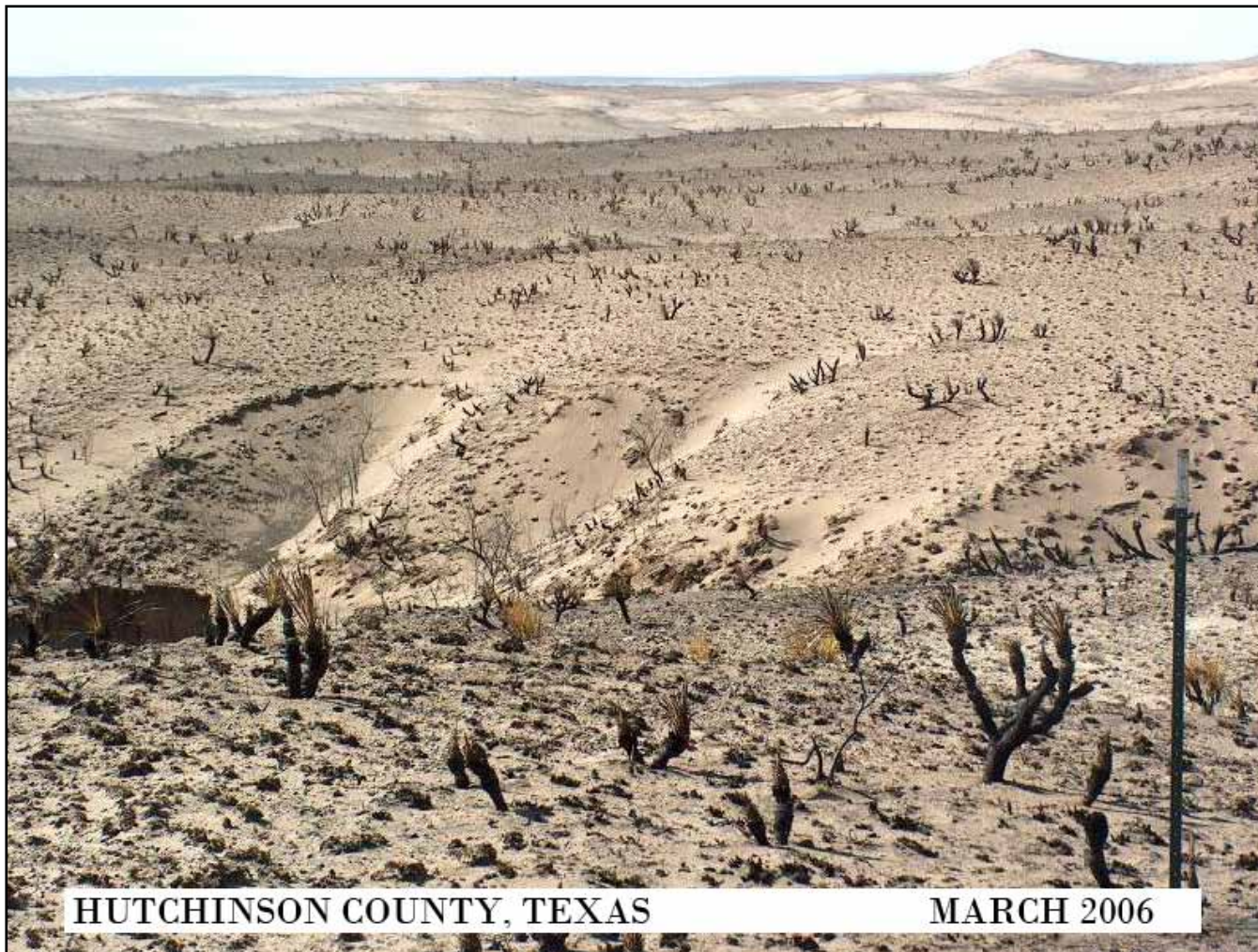


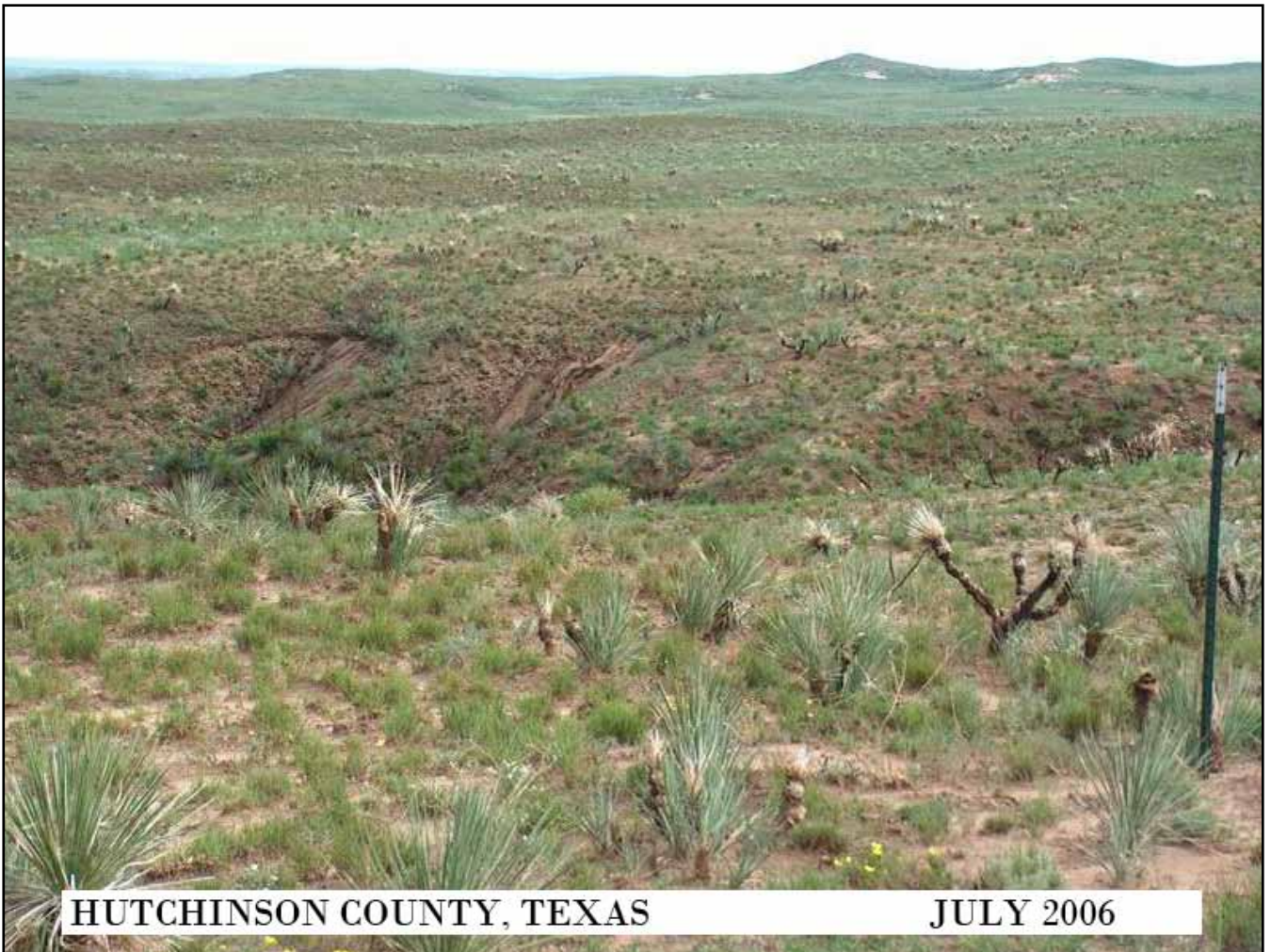
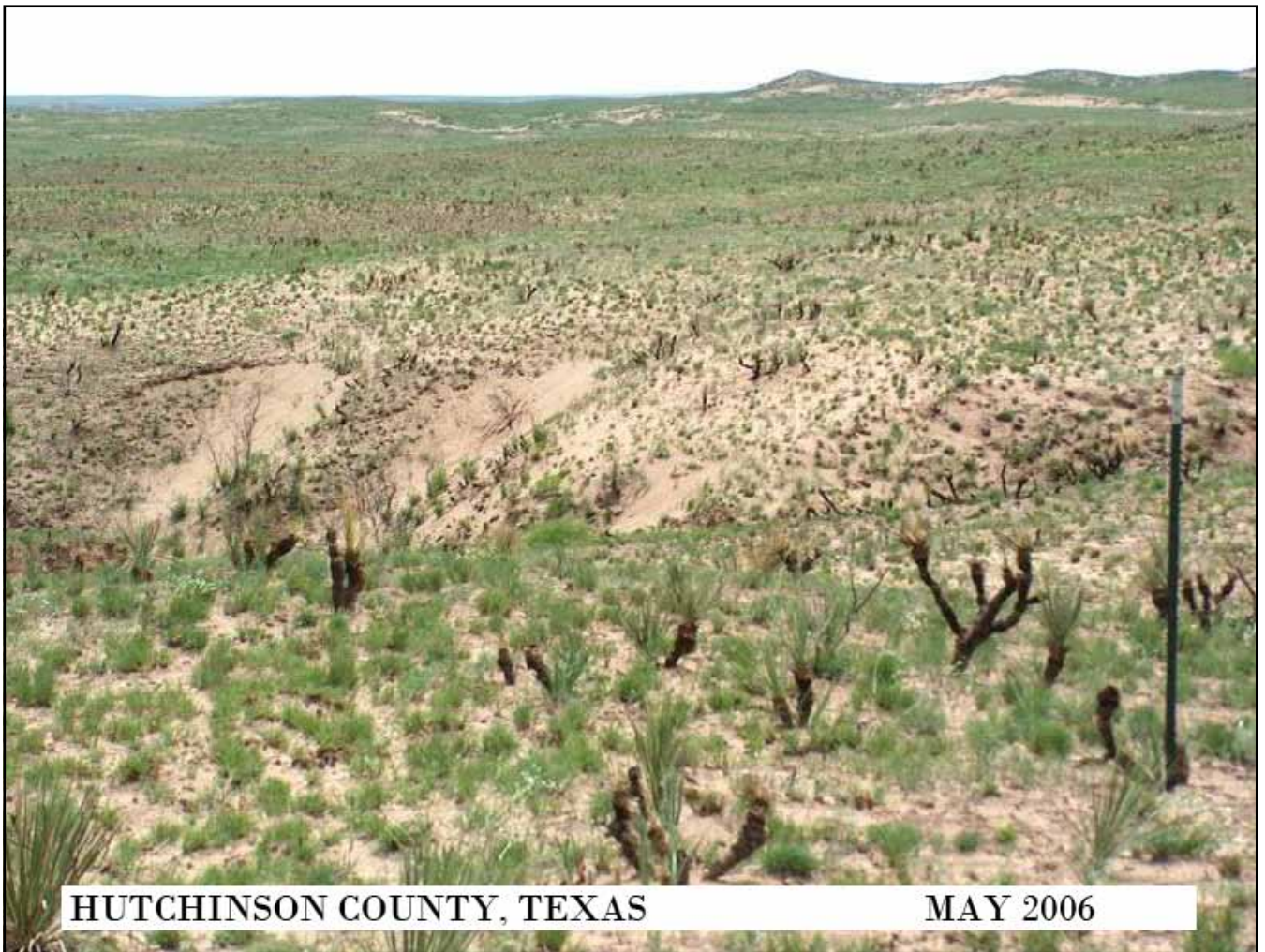
GRAY COUNTY, TEXAS - MARCH, 2006
TAKEN SHORTLY AFTER ONE OF THE BIG WILDFIRES SWEEPED THROUGH THE AREA

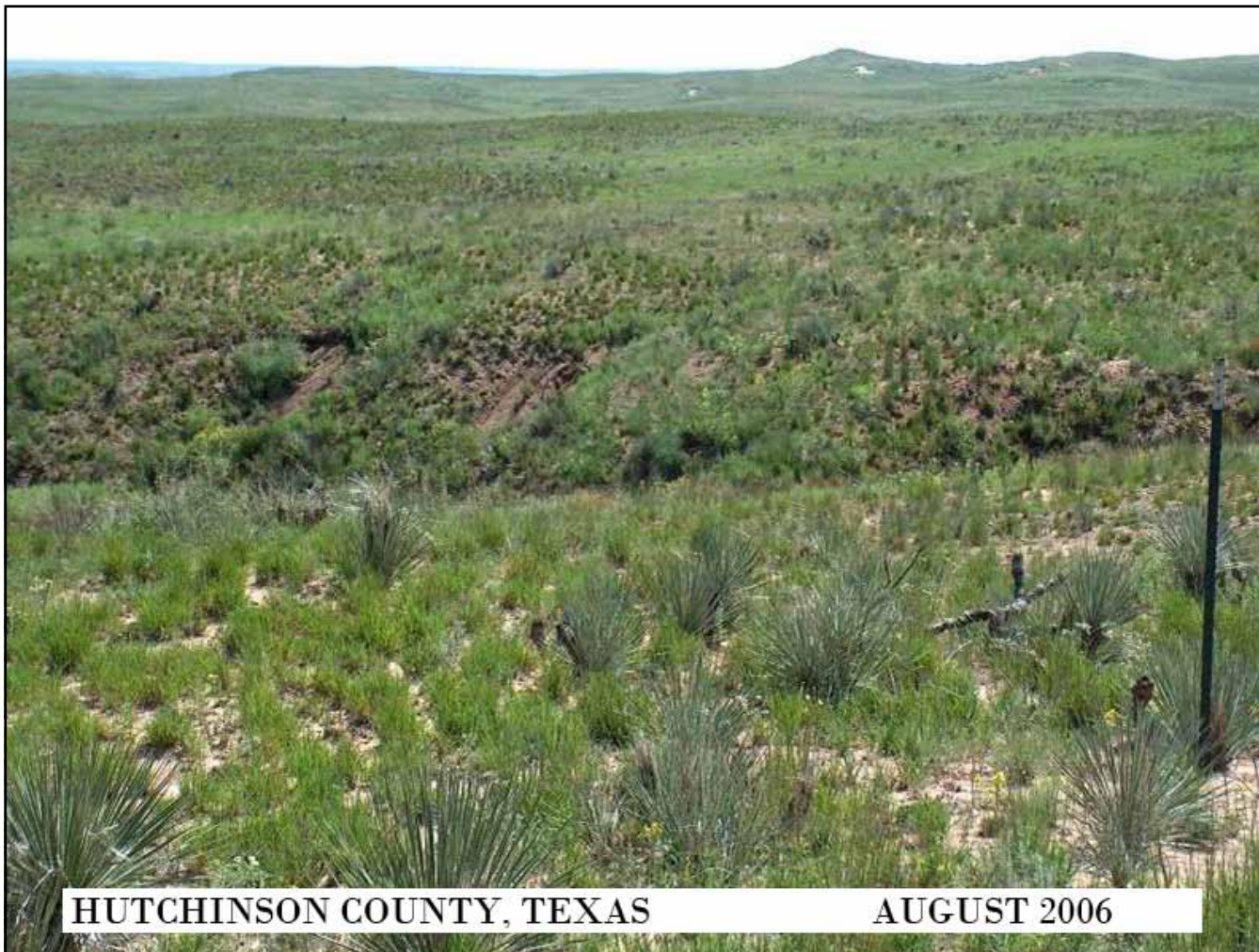


GRAY COUNTY, TEXAS - SAME SPOT TWO YEARS AFTER FIRE









HUTCHINSON COUNTY, TEXAS

AUGUST 2006



HUTCHINSON COUNTY, TEXAS

OCTOBER 2006



HUTCHINSON COUNTY, TEXAS

MAY 2007



HUTCHINSON COUNTY, TEXAS

SEPTEMBER 2008



LONG RANCH FIRE PICTURES - APRIL, 2011

Top: View along Croton Creek **Bottom:** Wedington Creek, cultivated fields and Ranch Headquarters





LONG RANCH FIRE PICTURES - APRIL, 2011

Top: View along Croton Creek **Bottom:** View of pasture on western portion of the ranch





LONG RANCH FIRE PICTURES - APRIL, 2011

Top: View of ranch boundary fence **Bottom:** View of dirt tank and eastern portion of the ranch





LONG RANCH FIRE PICTURES - APRIL, 2011

Top: View of dirt tank and southeastern portion of the ranch **Bottom:** View of Croton Creek





LONG RANCH FIRE PICTURES - APRIL, 2011
Views near ranch boundary comparing before and after





LONG RANCH FIRE PICTURES - APRIL, 2011
Top: View along Croton Creek **Bottom:** View along Wedington Creek



Prescribed Burning at RPQRR

Dale Rollins, Lloyd LaCoste, Kurt Huffman, Barrett Koennecke, and Paul Melton

Prescribed burning is the deliberate use of fire under specified and controlled conditions to achieve a resource management goal. Prescribed burning reduces accumulations of senescent grass, invigorates new growth, promotes forbs (weeds), and can help control woody plants and prickly pear. We use prescribed burning in several contexts at RPQRR. Our patch-burn grazing study, now in its second year, focuses on the effects of fire and cattle grazing on quail habitat, with emphasis on its potential to reduce density of prickly pear. We are also looking at the various combinations of prescribed burning and herbicides to control prickly pear. Approximately 300 acres was burned in 2009 in 20 different burns. In line with RPQRR's educational mission, we conducted 4 training burns as part of a Certified Prescribed Burn Manager workshop held in August. Regional interest in the Ranch serving as a nucleus for a Western Rolling Plains Prescribed Burning Association has been expressed. Interested persons should leave their contact information with Dr. Rollins.



Information and Resources

Natural Resources Conservation Service (NRCS) <http://www.nrcs.usda.gov>

Texas Forest Service <http://txforestservice.tamu.edu>

Texas Parks and Wildlife <http://www.tpwd.state.tx.us>



Area Ranches Using Fire as a Management Tool

Matador Ranch (Rangeland Management Award Winners)

<http://www.matadorranch.com>

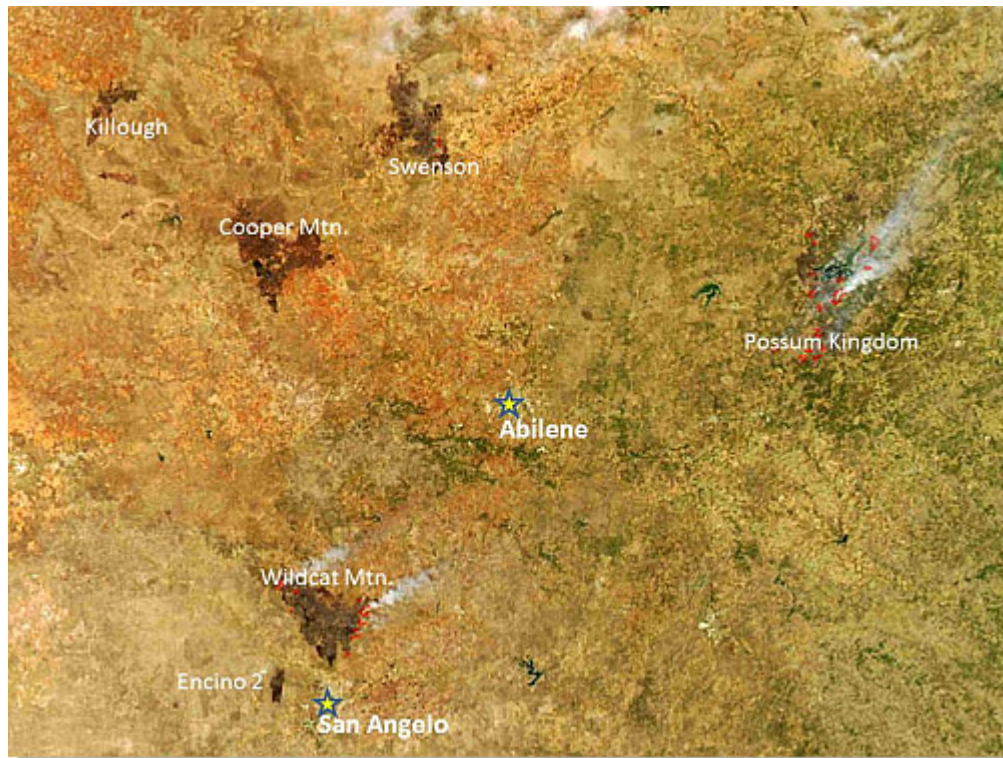
Rolling Plains Quail Research Center

<http://www.quailresearch.org>



Wildfires and Quail

The wildfire season of 2011 is one for the books. Almost two million acres of west Texas had burned as of today. It's been bad, could've been worse, and may yet be. To see a couple of photojournalistic accounts of recent blazes, see <http://www.dailymail.co.uk/news/article-1378816/Texas-wildfires-Million-acres-scorched-towns-red-alert.html> and <http://m.theatlantic.com/infocus/2011/04/texas-wildfires/100050/>.



Much of the scorched acreage was some of Texas' finest quail country. So how do quail, and the habitats they depend upon, respond to such conflagrations?

One of the questions that often arises (usually from the media) is "how many wildlife were destroyed?" My answer is "hardly any" which seems to disappoint them. They want to extrapolate scenes from "Bambi" to the real world here in west Texas, and the truth of the matter is usually much less dramatic than Disney would portray.

Even with the dramatic conflagrations we've seen over the past several weeks, I'd be surprised to hear of many deaths of game animals (deer, quail, turkey) with one possible exception: deer contained within (smaller) high-fenced ("deer-proofed") enclosures. Otherwise wild animals will find a way around, over, or through the fire front and escape the fire's wrath.

Certainly, if you witness or take pictures that document fire-related wildlife mortalities, I'd appreciate a copy of them for my files; please e-mail me at d-rollins@tamu.edu. During wildfires in 2006 in Sterling County I saw a great-horned owl with its "horns" (i.e., ear tufts) and wing tips scorched and isolated deer that had burned. But nothing to worry about—at least from a population perspective.



Photo Quail Burn courtesy C. Currie, TAMUK

Deaths from less mobile species like snakes, tortoises, and armadillos are more likely to occur. These animals typically seek underground burrows to escape their threats—if they find a suitable burrow, they're probably fine, but if not, they're toast. Those that seek refuge up in trees (e.g., porcupines) are especially vulnerable. I have seen pictures from wildfires in Mexico showing a black bear that had succumbed to the flames; its tendency to climb trees to escape threats didn't work in the case of a wildfire. Ditto for raccoons that often seek refuge in a hollow tree or under a brush pile.

I had a professor in college at Oklahoma State who often lamented that to address a dwindling herd of mule deer (which was widespread in western states during the 1970s) all that was needed was "a hot fire and a windy day." His point was that both the game animals, and the habitats upon which they flourish, are indeed adapted to periodic catastrophic fires (witness Yellowstone). Historically the fires that burned across the southern Great Plains were probably more like what we've witnessed in recent weeks than what we try to mimic feebly with our cool-season prescribed burns.

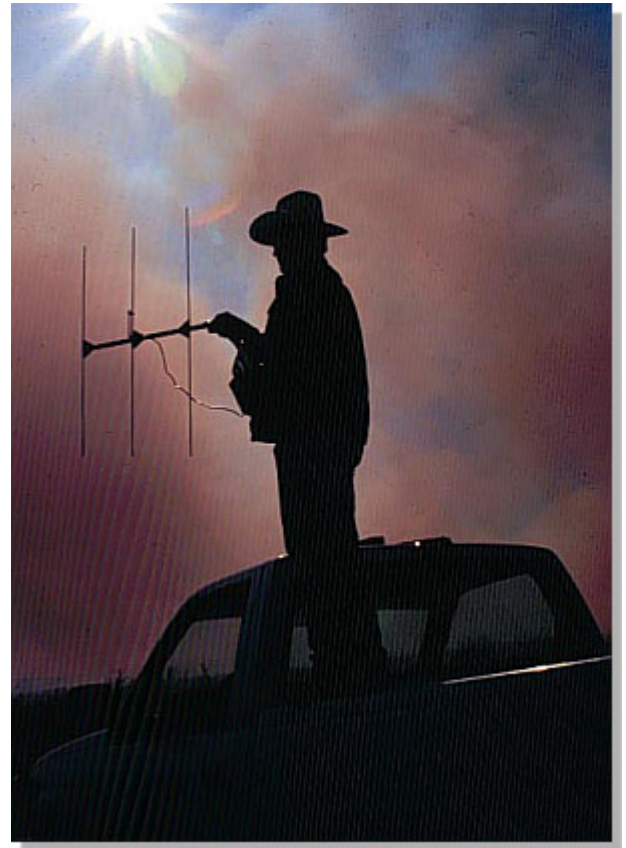
The timing of the fires from a quail's perspective was of a Dr. Jekyll-Mr. Hyde fashion. On the one hand large areas are devoid of nesting cover here on the eve of the nesting season. On the other hand, had the areas burned in December a quail would have more threats (migratory raptors) than they might encounter now that the Cooper's hawks and Northern harriers have likely moved further north. And if La Nina doesn't relinquish its grip soon, the nesting season will likely be toast, even on sites that didn't burn.

So how long will it take quail to repopulate such areas? The answer hinges on several factors, including soil type, plant community, scale of the fire (on your respective property), rainfall, and post-burn grazing management. Selah—take stock of which of those are under your direct control—only grazing management. Forewarned is forearmed.

Back in 1994, graduate student Philip Carter and I monitored radio-collared bobwhites and their response to February burns in Coke, Irion, and Tom Green counties. We'd hoped to study impacts of large-scaled "moonscapes" on the subsequent survival and nesting of quail. But unfortunately (well, at least for our hypothesis), our study sites were small (e.g., 300 acres) and "cool." Well Phillip, if you want to come back for your Ph.D., I know some larger landscapes on which to reconstitute your study.

A. S. Jackson, a Texas Parks & Wildlife biologist in the 1940s-50s, commented about quail recovery following a large wildfire in Hemphill County that burned on March 3, 1962. "Only the larger trees were left standing. Plum and sumac cover was burned off at the ground level. During the three-month period (March—May), this block of some 30,000 acres remained without a vestige of habitat for quail." However, after rains fell in June "the sandhills were ringing with the calling of bobwhites. When fall came, hunters reported the best hunting in the area that had been burned over."

We monitored quail abundance for three years on six sites following the 2006 Panhandle fires (which burned a million acres). Generally speaking, bobwhite populations rebounded better on sandy vs. clay-loam soils as one would expect based on the shrubs present (e.g. sand shinoak).



If it's economically feasible, rest burned areas from grazing for at least one growing season, if not longer. If only a portion of your ranch burned, and total destocking isn't feasible, adjust stocking rates to accommodate grazing preferences of livestock. In other words, if 70 percent of your grazeable acres burned, then reduce stocking rates by 30 percent as stock will graze burned areas preferentially (yea almost exclusively).

Sandy soils dominated by sand shinoak will bounce back the most quickly while more shallow soils dominated by cedars will be slower to recuperate.

*Article copied from RPQRR e-Quail Newsletter (May 2011 V3N5).