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Author: COHN, JEFFREY P.

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Jewel in the Rough: Pristine Prairie on a Working Ranch

JEFFREY P. COHN



Reverend Peter Conaty stands amidst billowing grasses of the Nash Prairie on the KNG Ranch, the largest remaining pristine coastal prairie in southern Texas. A few trees grow as woodlands in the wetter, low-lying areas and along fence lines. "It's a living, breathing museum," says Cecilia Riley of the Gulf Coast Bird Observatory. Photograph courtesy of Reverend Conaty.

The 300-acre Nash Prairie—or hay meadow, as most locals call it—is the largest surviving remnant of coastal prairie in Texas. The prairie is a haven where tall grasses billow over sedges and wildflowers. “I’ve never seen any place like this in Texas,” says Cecilia Riley, executive director of the Gulf Coast Bird Observatory in nearby Lake Jackson, who has led birding trips in the area. Sparse trees dot the vista, most of those in wet depressions in the surrounding grasslands or along a distant fence that marks the property’s boundary. To the east, one of the few remaining bottomland hardwood forests rises above the sea of grass. “It’s an example of what the Texas and

Louisiana coastal prairies once looked like,” Riley adds. “This is what we should strive for in restoring them.”

The preservation of the pristine grassland, part of the privately owned 17,000-acre KNG Ranch, 70 miles southwest of Houston, is, however, far from assured. Its persistence into the 21st century has been a result of good luck and even better land management—and the conservation ethic of a church and its pastor. The continuation of the prairie in its unspoiled state may depend on whether a government or private conservation scheme can be found that matches the unusual circumstances, and whether the owners can resist pressure to sell land for development.

A rare jewel

The Gulf Coast prairies once stretched from south of Corpus Christi east to Lafayette, Louisiana. They were dominated by mid-to-tall grasses, with trees and other woody vegetation growing mostly along the many rivers and streams that crossed the area. A combination of occasional fires, poorly drained soils, and grazing by bison and pronghorn kept woodlands from replacing grasslands. Overgrazing by human-introduced cattle and horses eliminated much of the grasses and other prairie plants and allowed woody species to invade the grasslands. Formerly totaling 9 million acres, less than 100,000 (an estimated 1 percent) remain. The rest have long since been

plowed under for agriculture, converted to pasture for cattle, altered for energy development or industrial uses, or developed to feed the housing boom in the fast-growing suburbs of Houston and other cities.

Following farming methods of the Czech and German immigrants who settled the area, the Nash Prairie and other smaller hay fields on the ranch remained unplowed. Cattle sometimes grazed the prairie and it was harvested for hay later in the year, but the land was not otherwise altered.

Further, the prairie has been protected by a complicated legal ownership and management that has kept it unchanged since Kitty Nash Groce willed it jointly in 1957 to a cousin; to St. Mary's Episcopal Church in nearby West Columbia, Texas; and to the West Columbia Hospital District Trustees. At some point, ownership will revert to just St. Mary's and the hospital trustees. In the meantime, the ranch and prairie are run by a separate group of managers, some of whom are also hospital trustees.

Although Texas botanists had long been aware of the Nash Prairie, it was not until 2003 that officials at St. Mary's Episcopal Church fully recognized its ecological significance. "My wife discovered that the prairie was valuable," recalls Peter Conaty, St. Mary's priest. "She heard a talk about the prairie and how it was one of the last remnants of the coastal prairies." To help preserve and manage it, Conaty consulted with church leaders and hospital district trustees on how to carry out the will while preserving the prairie. He also asked scientists and other officials from the US Fish and Wildlife Service (FWS) and the Gulf Coast Bird Observatory, as well as the local chapters of The Nature Conservancy, the National Audubon Society, and the American Farmland Trust, to advise the church. "It's a treasure," says Flo Hannah, the Houston Audubon Society's sanctuary steward. "It makes my jaw drop just to think of the biodiversity out there."

Real treasure

To document that diversity, David Rosen, an FWS botanist and graduate student at Texas A&M University, began surveying



Swamp sunflower (top), switchgrass and Kansas gayfeather (bottom left), and big bluestem (bottom right) light up the Nash Prairie. They are but 3 of the 270 native and 8 exotic species of plants found by US Fish and Wildlife Service botanist David Rosen on the 300-acre prairie. That is double the number found on the next most diverse prairie remnant in Texas. Photographs: The Nature Conservancy.

the Nash Prairie in 2003. To date, Rosen has found 278 plant species, only 8 of which are nonnatives. That is nearly double the number found on the most biologically diverse of all other remnant coastal prairies in Texas and Louisiana. He has also found a regionally unusual community of plants on the Nowotny Prairie, a smaller hay field on the KNG Ranch. In all, Rosen expects to find 400 species of prairie plants on the ranch by the time his study is completed next year.

Not surprisingly, grasses are the most numerous of the 278 plants identified so far. Rosen has found 58 species, including 6 exotic ones. Among the most common are big and little bluestem, Indian grass, brownseed paspalum, and switchgrass. Rosen has also identified 34 species of sedges, 33 members of the sunflower family, and 19 legumes. Rosen compares the 52 species of native grasses found at the Nash Prairie with the 63 reported at the Konza Prairie Biological



A close look at the Nash Prairie reveals brownseed and Florida paspalum, Kansas gayfeather (the purple plants), smallhead doll's daisy (the white flowers in the foreground), swamp sunflower (the yellow flowers on the right), and longspike tridens (the grasses with the long seed heads). Photograph courtesy of Flo Hannah.

Station in Kansas. "The 8600-acre Konza Prairie had only 11 more species of native grasses than the 300-acre Nash Prairie," he says. "That is remarkable to me."

One remarkable plant Rosen has identified at the Nash Prairie is *Cyperus cephalanthus*, or the buttonbush flatsedge, a three- to four-foot-tall sedge that scientists have scarcely seen growing wild since it was first described in 1843. Although the plant is known from Texas, Louisiana, and Oklahoma, scientists have not been able to find the original stand, and Rosen presumes it has been destroyed. Finding buttonbush flatsedge at the Nash Prairie represented "the biggest surprise out there," an excited Rosen says.



Nash Prairie plants that are rare or endemic to the coastal grasslands of southern Texas include buttonbush flatsedge (Cyperus cephalanthus; top left), Drummond's flatsedge (Cyperus drummondii; top right), bluestar (Amsonia repens; bottom left), and Texas coneflower (Rudbeckia nitida variant texana; bottom right). Of all the plants found on the Nash Prairie, buttonbush flatsedge, in particular, needs pristine or relic grasslands to thrive.

Photographs: David Rosen, US Fish and Wildlife Service.

The Nash Prairie has not only diverse plants but also a rich bird fauna. Although the prairie is not critical habitat for any of them, some 120 bird species are known to nest in, use, or migrate through the area, says the Gulf Coast Bird Observatory's Riley. Breeding birds include northern masked bobwhites, yellow-crowned night herons, and American bitterns. Among the wintering birds are various sandpipers, Sprague's pipit, American goldfinch, and Le Conte's sparrow. Swainson's and harrier hawks make their homes in the prairie grasses or surrounding forests, while bald eagles soar overhead. Even the caracara, a long-legged scavenger usually found farther south and west in Mexican grasslands and desert scrub, can be seen at the Nash Prairie.

A complicated question

Despite its ecological importance, conservationists and church leaders worry about the Nash Prairie's future. "We want to manage the land as an unplowed prairie, but I fear that it might be sold," St. Mary's Conaty says. In all likelihood, he adds, portions of the ranch will be sold once ownership reverts to the church and hospital trustees. A developer has already offered St. Mary's \$9 million for the land, which would then be turned into suburban ranchettes for Houston commuters. Moreover, the hospital trustees are obligated by Kitty Nash Groce's will to build a hospital or other health care facility. The money to do that could only come from selling portions of the KNG Ranch.

Riley points to nearby Brazoria County and the city of West Columbia, which are rapidly emerging as Houston's outer suburbs. "More and more people are moving out here," she says ruefully. "The problem is that we love such places to death. I would hate to lose such a rare jewel."

One possibility for protecting that rare jewel from development is to add it to the USDA (US Department of Agriculture) grassland reserve program. The grassland reserve program allows landowners to voluntarily restore and protect prairies, pastureland, rangeland, and other grasslands. An earlier proposal to include the prairie in the grasslands program died

when Groce's cousin refused to join; the heir's son applied for the program in 2005, however, but no action has been taken so far.

Another possibility is for St. Mary's Episcopal Church to create a nonprofit group that would own and protect the Nash Prairie, either as a USDA grassland reserve or under the current ownership. "We're all for preserving the prairie," Conaty says. The problem: Legally, the church cannot own property; only its larger diocese can. Conaty hopes the diocese will agree to the arrangement.

Yet a third option might be for FWS to protect the prairie as a national wildlife refuge. The agency already owns 12,000 acres of bottomland hardwood forests in southern Texas, three-fourths of those as wildlife refuges, but it has no plans to add the Nash Prairie. "That's private property," notes Michael Lange, an FWS wildlife biologist, of the prairie's complicated ownership. "We need a willing seller. It's a very complicated question."

Just how complicated can be seen in the views of John Phillips, a hospital district trustee and a neighboring rancher who mows the Nash Prairie for hay. "I want to see [the KNG Ranch] preserved, but not by [FWS]," Phillips says. "They would remove the cattle. We could lose [the prairie] if it is not grazed or burned periodically." Phillips hopes that USDA will protect the prairie as a working ranch within the grasslands reserve system.

Elsewhere, USDA, FWS, the US Forest Service, and various other federal and state agencies preserve prairies in national and state parks, grasslands, and recreation areas farther north in the great plains. The Nature Conservancy and other private conservation groups also own and preserve native prairies. This patchwork of preserves, administered by such different agencies, provides protection for wildlife and natural landscapes, though which agency and what designation is adopted in any case often depends on political, financial, and local factors. And the legal thicket entangling the Nash Prairie means that its future hangs in the balance.

In the meantime, the Gulf Coast Bird Observatory, The Nature Conservancy, and FWS are trying to raise money to buy conservation easements that would protect it from development. Riley hopes to obtain grants from USDA, FWS, and other government agencies to pay landowners to preserve their property.

"Right now those of us who own or manage the ranch are focusing on our ecological stewardship of the prairie," Conaty says. "We have no plans to sell anything. We hope to keep the ranch and prairie going as is."

Jeffrey P. Cohn (e-mail: jeffcohn@sbcglobal.net) is a freelance science writer living in Takoma Park, Maryland.

