Round the Year on Kissimmee Prairie Sanctuary
by Judith Buhrman and Scott Hedges

Candy Weller and her husband Fred Meyerhoffer, Tracy Floyd, and Judith Buhrman traveled to Kissimmee Prairie Sanctuary on January 16, 1993, to see it in another season.

Part Two: Winter

Go far enough into the Sanctuary and it is possible to sustain the illusion that you are the only humans within a thousand miles. The ancient music of the wilderness replaces the constant din of human activities with harmonies and rhythms our ancestors a thousand generations removed must have heard. The wind plays a gentle accompaniment to many voices: meadowlarks, cricket frogs, wintering palm warblers, yellow-rumped warblers, and towhees. Invisible sparrows chip and squeak beneath the golden grasses. A red-shouldered hawk screams — in what? Irritation? Exultation? A turkey gobbles once, again. A sandhill crane skirls in the distance, the anthem of the prairie.

One needs to hush and listen to the music.

The winter crowd of avian tourists is here. This annual influx underscores the importance of the Sanctuary to not just Florida but the entire continent. Ring-necked ducks, blue-winged and green-winged teals, hooded mergansers, yellow and black rails, northern harriers, tree swallows, and Henslow’s, swamp, and savannah sparrows have come to try to make a living on the prairie. Sharp-shinned hawks, kestrels, and merlins join the resident raptors to exploit this abundant food source.

The prairie looks more subdued in winter than it did in the fall, but it is by no means drab. The different grasses are now a uniform 14-karat gold, seeming to glow from within in the late afternoon sun. The riot of wildflowers has been quelled, but several linger, including hatpins (Eriocaulon compressum), bog buttons (Lachnocaulon anceps), coreopsis (Coreopsis spp.), black-eyed susans (Rudbeckia hirta), polygalas (Polygala nana, P. lutea) and bladderworts (Utricularia spp). The butterworts (Pinguicula caerulea, P. lutea, and P. pumila) are beginning to bloom; rayless goldenrod (Bigelowia nudata) predominates.

And everywhere, this day, there are deer, bounding away from us with fluid grace, white signal flags a-hoist. Often, they do not flee far, but stop, drop their tails, and simply disappear from sight. I am sorry we disturb them, but grateful for the privilege of seeing these athletic creatures in motion.

Most of Florida’s dry prairie is located in lower central Florida, flanking the Kissimmee River north of Lake Okeechobee, as well as to the west of it. Longleaf pine (Pinus palustris), pond pine (P. serotina), and slash pine (P. elliottii var. elliottii) — flatwoods species all — do not range this far south. This is the realm of the south Florida slash pine (P. elliottii var. densa), more fire-tolerant than its northern counterpart, but less so than the longleaf.

It is not strictly true that the prairie is a “pine flatwoods without the pines.” Isolated mature individuals can be seen, often with several sabal palmettos in attendance, planted no doubt by birds. In our wanderings on this visit, we see but one young pine, a disconsolate-looking sapling. Why so few? Or any pines at all?

Are dry prairies anthropogenic — the
result of human intervention such as logging, grazing, disrupted fire cycles, or the alteration of water tables? If so, why are no stumps found in the Sanctuary? And why are three bird species found on the prairie that are not found in flatwoods habitats: the crested caracara, the burrowing owl, and the Florida grasshopper sparrow? If prairies are natural systems, what holds the forest in abeyance? Is the hydropause too long or too short? Is something about the soil?

Such physical differences between flatwoods and prairie in soil and water level are so small as to be not readily detected. It is hard to believe that a tree as tolerant as the South Florida slash pine, at home in a wide variety of sites throughout its range, would hesitate to grow on a place as inviting as the prairie. Were fires here too frequent to permit a forest to form? Pieces still need to be fitted into this ecological puzzle we call the Kissimmee Prairie.

While many questions remain unanswered, however, there is no doubt that the prairie is fire dependent. Look deeply into four years of undisturbed wiregrass (Aristida stricta) growth and you will see four years of some of nature's most tindery, flammable fuel. It is as if the plant refuses to decompose through mundane, silent rotting. Each dead leaf blade is carefully supported by others dried and cured, the whole mass is open for air exchange, held above the moist ground, each day drying to the moisture content of a mummy, each night drinking in the dew, and waiting — waiting for inevitable immolation. Consider the structure of this vegetable phoenix, and from every angle it speaks of the conflagration so critical to its function. It is a wonder this plant hasn't learned to ignite itself and bypass the random, indispensable bolt of lightning we have learned is indispensable to its life cycle. When the lightning does come, little time is wasted in the regrowth, no mourning period for those four years of dead, only a celebration for a new generation to come.

Wiregrass, though, is not the only organism here fathered by lightning, and there is no end to the adaptations and dependencies on fire. Saw palmetto (Serenoa repens) is highly flammable, and, like the diminutive runner oak (Quercus minima), maintains its critical biomass below ground, safe from the flames. The net result of this community's predilection for fire is that it is perhaps one of the most frequently burned places on our planet. Yet no chamber of commerce has seized upon this distinction to boast, "Welcome to Smithville, The Most Frequently Burned Place on Earth!"

The endangered Florida grasshopper sparrow is a beneficiary of prescribed fire on the prairie.

A mounting body of evidence points to early summer as the peak fire season on the prairie, when lightning and rains are just beginning. The prairie, however, does not need to be dry to burn, because the structure of the fuels allows fires to carry right over standing water. The burns planned for this year range from 50 to 300 acres in size, and ideally will be set on a hot day with moderate winds and humidity in the 40s, sometime between May and July.

To protect this precious resource, Hedges has set a goal to avoid the use of plowing or disk ing to create firebreaks whenever possible, preferring to use methods for containment that do not destroy the soil. Working with fire managers from The Nature Conservancy, the Department of Natural Resources, and the Air Force, he has already employed several innovative methods to preserve the integrity of the surface. Making maximum use of existing natural barriers such as hammocks and wetlands, and manmade road cuts, which often have sufficient water in them to be splashed out by a (relatively) speeding truck to create a "wetline," has been successful.

Wetlines — temporary firebreaks created with water — are often used as places from which to start a backfire (against the wind), a flankfire (parallel to the wind), or a headfire (with the wind). They can also be created with tools other than existing ruts, including an airboat outfitted with a water tank to wet the vegetation flattened by its passage, or a truck equipped with a water tank and pump, deployed to spray the area in front of a fire.

Headfires can consume acreage at several hundred feet per minute, and were likely common in nature. They are the most difficult to control. But perhaps here on the prairie, nature does not disdain fire from any direction, nor distinguish in its outcome.

If you would like to contribute to the management fund of the Sanctuary, send a check, made out to National Audubon Society Kissimmee Prairie Sanctuary Management Fund, to Kissimmee Prairie Sanctuary, 14425 NW 248th St., Okeechobee, FL 34972. If you would like to help in other ways, or schedule a field trip, call Scott Hedges at (813) 467-8497.

"Part Three: Spring" in this four-part series will appear in the next issue of The Palmetto.

Judith Buhrman organized and is president of the two-year-old Pinellas Chapter, and is an FNPS director-at-large. Scott Hedges is manager of Kissimmee Prairie Sanctuary.