

# NATURAL AREAS PROTECTION AND RECREATION OPPORTUNITIES ON PIONEER FOREST AND OTHER PROPERTIES OF THE L-A-D FOUNDATION

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**Abstract**—The lands of Pioneer Forest and the L-A-D Foundation comprise more than 150,000 acres. Pioneer Forest is located within the Current, Jacks Fork, and Black River watersheds in the Ozarks. The other L-A-D Foundation properties are broadly distributed from north-central Missouri to extreme southern Missouri, with a primary concentration in the Ozark region. Both Pioneer Forest and the L-A-D Foundation are life-long projects of Leo Drey, a conservationist and businessman from St. Louis, MO. On these lands are important natural and cultural resources as well as interesting and unique outdoor opportunities. A number of landmark achievements in the fields of natural areas protection and outdoor recreation have resulted from the leadership of Leo Drey. The principal developments in these fields that have occurred here over the past half-century are chronicled in this paper.

## INTRODUCTION

During the 1950s, Leo Drey, a conservationist and businessman from St. Louis, MO, assisted by foresters Lee Paulsell, Ed Woods, and Charlie Kirk, came to understand that Ozark forests could recover from the more intensive cutting, which began at the turn of the century, and, by the use of conservative and thoughtful harvest practices, could be restored to provide continuous economic productivity. Pioneer is widely known for its system of timber management, but Leo, with advice from his early foresters and along the way from other advisors, also has been a leading steward for a very broad range of natural and recreational resources on Pioneer Forest and beyond.

One cannot purchase 150,000 acres of undeveloped land in the Ozarks without, at the same time, acquiring important natural features and lands that are important for outdoor recreation. Stewardship of these resources is also part of the Pioneer story—and the Leo Drey story.

## CONTRIBUTIONS RECOGNIZING NATURAL AREAS IN MISSOURI

### Participation in Society of American Foresters Natural Areas Program

In 1947, the Society of American Foresters (SAF) began a program to recognize the value of setting permanently aside certain tracts of high-quality, unique, or otherwise special lands as a reference for study and comparison—an outdoor library of original forest and natural community types. During its first 2 years, the SAF Natural Areas Program had registered 153 areas on either U.S. Forest Service or USDI Fish and Wildlife Service lands, many located in western states, particularly in Arizona, Oregon, and Washington, although none had been designated in Missouri. To encourage even greater participation, the April 1952 issue of the *Journal of Forestry* issued a call for foresters to locate and register virgin type associations in this new program. The philosophical rationale for these areas has evolved

since that time, and the importance of such areas has now been almost universally acknowledged throughout the natural resource professions. Today's consensus, however, required yesterday's pioneers.

In 1951, Leo Drey acquired his first tract of land in the Ozarks of southern Missouri and, in 1954, he acquired the nearly 90,000-acre holding of National Distillers land. Foresters Ed Woods and Charlie Kirk had already begun working with the SAF to establish a virgin hardwood area on the National Distillers property (file correspondence of Pioneer Forest, August and October 1953). On the advice of both Woods and Kirk, now foresters with his newly created Pioneer Forest, Drey recognized the value of the natural area concept and approved registration of a 10-acre tract of old-growth white oak forest as an SAF Natural Area. SAF Natural Area Committee Chair John Shanklin reported on the designation of the Current River Natural Area in the March 1955 issue of the *Journal of Forestry*.

This particular white oak forest had previously been identified as a significant site for Missouri. The first list of Missouri sites to be considered for preservation included 121 areas and was compiled sometime prior to 1953 by well-known botanist Julian Steyermark (The Nature Conservancy 1954). Steyermark's list of areas was then annotated by field visits conducted by Nevins (1953) for The Nature Conservancy. Nevins's shorter list of 55 sites described the virgin white oak forest owned by National Distillers. The *St. Louis Post-Dispatch* interviewed Drey in May 1954 and reported on the setting aside of "two tracts of virgin white oak estimated to contain 300,000 board feet of timber. Drey says these trees will not be harvested, but kept in their virgin state as a sort of monument to past greatness of Ozark forests and an object lesson as to what a fine forest can become if permitted to do so. . . . Some of the trees . . . measure almost 4 feet in diameter. Many of them may have been vigorous saplings at the time of the Revolutionary War." Clearly this was not a tentative inauguration of natural areas at Pioneer Forest—Leo Drey had become fully engaged. Current River Natural Area was the first such area designated in Missouri and Drey was

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undoubtedly looking for other ways he might participate in this evolving effort.

Drey was active in SAF programs throughout the 1950s and worked on several committees as a member of that professional association. As late as 1960, the Current River Natural Area remained the only SAF area designated on public or private lands in Missouri. Despite this relatively slow progress in his home state, Leo continued to be a supportive voice for identifying and protecting natural areas on his and other lands.

In 1964, negotiations were completed for the second SAF natural area on the forest (correspondence February-April 1964). The site, Pioneer Natural Area, was a mixed forest site with old-growth eastern red cedar on a ridge directly adjacent to the Current River. The files of Pioneer Forest for both areas include correspondence, field measurements, notes, and land survey information contributed by several of the staff who were also members of the SAF, including Ed Woods, Charlie Kirk, and Steve Lindsey. In the December 1964 issue of the SAF's *Journal of Forestry*, D.W. Lynch (1964) noted that both areas "are examples of outstanding contributions by a private timber landowner in which he relinquishes the management of the areas to a board of trustees under legal indenture."

### Missouri Natural Area Survey and L-A-D Foundation

By this time, the Nature Conservancy and the University of Missouri also had become more active, conducting studies and identifying priority sites for protection. Drey became involved in both, and his association with this early natural areas work proved fruitful.

By 1958, Drey had already joined the board of trustees for the fledgling Missouri Chapter of the Nature Conservancy. Drey participated in discussions regarding purchase of the Jam Up Bluff area (Hath 1958). Then, Dr. William H. Elder, also a member of the board and professor at the University of Missouri, began more formal study of natural areas in the state (Sherman 1965). Other surveys for natural areas were being planned, using graduate students at the university.

The L-A-D Foundation was formed by Drey in 1962 and became the primary vehicle for pursuing his goal of protecting natural areas, parallel and complementary to his forestry goals on Pioneer Forest. From 1971 to 1973, Drey's L-A-D Foundation contributed to the university's work through financial support of a second survey of natural areas (Fadler and Elder 1973) in six counties in the Ozarks.

During the 1970s, two separate but complementary efforts worked to complete the first statewide inventory for natural areas. The University of Missouri effort completed four additional studies (Mechlin and Elder 1974, Muser and Elder 1975, Karel and Elder 1976, Iffrig and Elder 1978) through funding from the State Inter-Agency Council on Outdoor Recreation. The L-A-D Foundation initiated an inventory of remaining unsurveyed counties, plus a statewide summary of previous work. The foundation's project was known as the Missouri Natural Area Survey and was underway from 1974 to 1978 under the direction of R. Roger Pryor of St. Louis (Pryor 1980).

These combined efforts during the 1970s produced the initial comprehensive inventory of potential Missouri Natural Areas. The listing of evaluated sites proved immediately useful as acquisition priorities were developed. Leo himself joined government agencies and other private conservation groups in various committees and study groups to determine which natural areas most deserved preservation. Each participating organization accepted responsibility for certain areas. The L-A-D Foundation stepped forward to purchase priority areas where there was no public agency in a position to do so.

### Participation in the Missouri Natural Areas System

The Missouri Conservation Department initiated their Natural Areas Program for agency-owned properties in 1970. The first natural areas were approved in 1971, including two L-A-D Foundation sites, Clifty Creek Natural Bridge in Maries County and Piney River Narrows in Texas County. Then, in 1976, by cooperative agreement, the Missouri Departments of Conservation and Natural Resources joined forces to form a truly statewide effort. This was known as the Missouri Natural Areas System, and it is now a multi-agency program of great strength and vigor administered by the Missouri Natural Areas Committee (MoNAC). Shortly after the agencies combined efforts, Leo Drey was asked to include the two L-A-D Foundation-owned areas previously registered with the Society of American Foresters, the Current River and Pioneer Natural Areas, in the state system. MoNAC chairman Allen Brohn, in a memo to the Natural Areas Committee, said, "designation of these tracts would be breaking new ground for our system" (Brohn, correspondence, 1977). Other L-A-D sites followed, including classic Missouri landmarks such as Grand Gulf in Oregon County, Hickory Canyons in Ste. Genevieve County, and Rocky Hollow in Monroe County. A total of 11 areas have been thus permanently protected as Missouri Natural Areas (table 1). Drey had acquired his interest in protecting important Missouri places on Pioneer Forest first, but it became a lifelong passion with enormous public benefit throughout much of Missouri.

Over the years, leaders of the Missouri Natural Areas Committee came to realize that protecting the biodiversity of natural areas usually required sizeable acreage. Some began to question whether the earliest small areas, such as Current River Natural Area at only 10 acres, really belonged in the system. L-A-D Foundation leaders, noting that it was the first designated area in the state, asked a team of naturalists to examine Current River Natural Area in person. Once on site, the naturalists reported their astonishment that the Pioneer Forest land surrounding the tract was equal in quality to the original natural area. As a consequence, Drey agreed to add additional land to the natural area, and on April 30, 2005, the L-A-D Foundation celebrated the rededication of Current River Natural Area by adding 255 acres on the occasion of the area's 50th anniversary (fig. 1). The nomination for the expansion (Drees and others 2004) states: "CRNA (Current River Natural Area) is one of the few old-growth white oak forests in the Missouri Natural Areas System . . . The 255-acre addition protects more of the landscape—the natural integrity of the original natural area is strengthened by the high natural integrity of the addition.



**Table 1—L-A-D Foundation lands recognized by various State or national programs**

Name	County	Recognition	Date	Size acres
Ball Mill Resurgence	Perry	Missouri Natural Area <sup>a</sup>	1979	19.7
			2007	183.2
Total				202.9
Clifty Creek	Maries	Missouri Natural Area	1971	230
Current River	Shannon	SAF Natural Area <sup>b</sup>	1955	
		Missouri Natural Area	1977	10
		Addition, Missouri Natural Area <sup>d</sup>	2005	255
Total				265
Dillard Mill	Crawford	Missouri Historic Site <sup>c</sup>	1977	130
Grand Gulf	Oregon	National Natural Landmark	1971	
		Missouri State Park <sup>c</sup>	1984	159
		Missouri Natural Area	1986	(portion) 60
Hickory Canyons	Ste. Genevieve	Missouri Natural Area	1973	420
		Addition, Missouri Natural Area	1979	530
Total				950
Horseshoe Bend	Texas	Missouri Natural Area	1973	69
Lily Pond	Reynolds	Missouri Natural Area	1975	8
Piney River Narrows	Texas	Missouri Natural Area	1971	50
Pioneer	Shannon	SAF Natural Area	1964	
		Missouri Natural Area	1977	20
Rocky Hollow	Monroe	Missouri Natural Area	1973	
		National Register of Historic Places	1974	191
Roger Pryor Pioneer Backcountry	Shannon	Lease to Missouri State Parks	2002	56,675
Scenic Easements	Shannon, Carter	National Park Service		
		Ozark National Scenic Riverways	1970	951
Triple Sink	Shannon	Missouri Natural Area <sup>d</sup>	1980	23
		Addition, Missouri Natural Area	2007	19
Total				42

<sup>a</sup> The Missouri Natural Areas System began in 1971 with the first areas owned by the Missouri Department of Conservation. Beginning in 1977 the Missouri Natural Areas Committee was established by agreement of the Missouri Department of Conservation and Missouri Department of Natural Resources to review and approve natural areas throughout the State under a variety of public and private ownerships.

<sup>b</sup> The Society of American Foresters Committee on Natural Areas was organized in 1947.

<sup>c</sup> State historic sites and State parks are managed by the Division of State Parks, Missouri Department of Natural Resources.

<sup>d</sup> Originally designated as a Missouri Natural Area under the ownership of the Frank B. Powell Lumber Company; acquired by the L-A-D Foundation in 2006.

The nomination includes three additional terrestrial natural communities . . . [as well as an] Ozark Faunal Region headwater stream. The contribution of these four natural communities to the overall biodiversity within the natural area is very significant.” The role of Current River Natural Area in tracing Missouri’s own natural areas history along with the institutionalizing of state programs around the country testifies to the good judgment and lasting value of once novel efforts.

### Cooperation with Other State and Federal Agencies

In 1964, the Ozark National Scenic Riverways was established by Congress for management by the National Park Service. It was intended to protect the free-flowing Current and Jack’s Fork Rivers by purchasing or acquiring scenic easements on a corridor extending at least 300 feet back from the banks of the two streams. Pioneer Forest includes more than 35 miles of frontage along the riverways, so Drey was faced with a major challenge to the integrity of Pioneer Forest. Though the





Figure 1—Richard Smith and Leo Drey at the April 2005 dedication of the expanded Current River Natural Area. Smith was a forestry professor at the University of Missouri who was involved in the SAF designation of the original area in 1955. (Courtesy of Pioneer Forest)

National Park Service insisted on outright purchase of some lands, especially in the vicinity of Round Spring, it was willing to accept scenic easements on the remainder, totaling nearly a thousand acres. Drey subsequently donated the easement lands to the L-A-D Foundation, which oversaw the lands in cooperation with the National Park Service. The easement lands include a number of noteworthy natural and cultural features, including Medlock Cave, which harbors several endangered species; Bluff School, fondly remembered by many older Ozarkians; and Cave Spring, a karst geology masterpiece immortalized in a haunting riverside painting by Thomas Hart Benton.

Among the many outstanding sites Leo Drey helped protect were Dillard Mill and Grand Gulf, both now leased to the Missouri Department of Natural Resources for state parks (Flader 1992). One of Missouri's most picturesque gristmills, Dillard Mill, was to have been acquired by the U.S. Forest Service and then leased to the state, but the U.S. Forest Service appropriation fell through, so Drey stepped in to acquire the site through the L-A-D Foundation and complete the lease agreement with the state. There had also been interest in a state park at Grand Gulf near the Arkansas border, known to many as "Missouri's Little Grand Canyon," since at least 1959. Drey finally stepped in to save the property in 1970 by purchasing it for the L-A-D Foundation, and, in 1971, it was recognized by the U.S. Department of Interior as a National Natural Landmark. After the successful lease arrangement for Dillard Mill, Drey concluded a lease agreement with the state for Grand Gulf State Park in 1984.

Drey also stepped into north Missouri to save Rocky Hollow in Monroe County. Shortly after it had been included in Missouri's Natural Areas System in 1973, it was also approved for listing on the National Register of Historic Places in recognition of its highly significant Indian petroglyphs. Rocky Hollow is now managed by the Missouri Department of Conservation, along with nine other L-A-D Foundation natural areas.

For many, the most dramatic single episode in the saga of Drey's one-man rescue squad for at-risk natural areas came during the 1980s when he purchased Greer Spring in Oregon County. Greer Spring is the most unspoiled of the large freshwater springs of the Ozarks, a region known around the world for its abundance of such treasures. Rising from the floor of a thickly vegetated dolomite canyon, Greer Spring is a feature of extraordinary beauty, scientific importance, and symbolic value.

In the 1980s, various circumstances combined to put this landmark at grave risk. Drey was a key player in the campaign to protect the area, and when all other strategies seemed about to fail, he knew he was the only one who could save the day—so he did. He put \$4.5 million on the table to purchase the spring and the surrounding 7,000 acres. This bought the time needed to have Congress authorize purchase of the tract, by now with the generous assistance of one of Missouri's most widely known corporations, Anheuser-Busch. The tract was then added to the Eleven Point National Scenic River, managed by the U.S. Forest Service.

Beginning in the 1990s, Pioneer Forest also began more thoroughly to review its own resources. This has led to the designation of a series of Pioneer Forest Reserves, each recognizing special or unique features and habitats. So far, there are seven such areas totaling more than 1,500 acres. They include a significant cultural feature as well as forests, caves, fens, hollows, and sinkholes. The largest and most important area, Leatherwood Creek Forest Reserve, protects an unspoiled tributary of the Jacks Fork River—a wonderland of dissected Salem Plateau geology, topography, flora, and fauna.

## DEVELOPING RECREATIONAL OPPORTUNITIES ON PIONEER FOREST

Pioneer Forest stretches across large blocks of contiguous and appealing Ozark land; it includes major stretches of the Current and Jacks Fork Rivers, plus smaller stretches of the Black and Little Black Rivers. The forest includes dozens of miles of permanent tributary streams, caves, springs, natural ponds, forests, bluffs, and hills. This expansive landscape is, and always has been, a compelling place for outdoor pursuits, not only for local residents but also, especially on the Current River, for the many outside visitors to the region.

From the time of his first purchase, Leo has welcomed visitors on Pioneer land, making it available for traditional hunting and fishing, swimming, hiking, and horseback riding. There is also the seasonal gathering of such Ozark delicacies as mushrooms, paw paws, persimmons, walnuts, blackberries, dewberries, and huckleberries.

The swift clear waters of the Current and Jacks Fork Rivers have drawn locals and visitors alike since the 19th Century, even though old-time jon boats have generally given way to canoes, inner tubes, and modern fishing boats. On the Current River alone, as noted above, Pioneer Forest borders or surrounds the river for more than 35 miles.



When the Ozark National Scenic Riverways was established under the National Park Service in 1964, public use dramatically increased. This led Drey to reflect on how he might more actively accommodate access to, and enjoyment of, Pioneer lands in the vicinity and be responsive to the growing public interest in such outdoor activities as long-distance hiking, nature study, and photography.

During the 1970s, the National Park Service was well underway with its own planning, and at least some of its thinking involved connections between the park and Pioneer Forest (Bruff 1977), but the service decided to confine its efforts to the riverways corridor. Drey, meanwhile, had invited the then Bureau of Outdoor Recreation to study how Pioneer Forest could encourage more outdoor recreation in a manner that would be compatible with his ongoing forestry programs. This resulted in a recreation plan (U.S. Department of the Interior 1976) authored by BOR staffer Gerald Stokes. Noting that the plan was well done but also very ambitious, Drey then asked two experienced Missouri conservationists, David Bedan and Bob Goetz, to boil that federal plan down into projects that were feasible and consistent with his approach to things: understated and to the point. Their resulting study (Bedan and Goetz 1976) outlined a program that continues today to serve as a blueprint for recreational programs on Pioneer Forest.

### **The Ozark Trail and Other Trail Development on Pioneer Forest**

Also during the 1970s, state and federal agencies were in the formative stages of planning for a Missouri Ozark Trail, a 150-mile-long hiking trail through the Missouri Ozarks. With the exception of Pioneer Forest, the projected route was almost entirely on public land. These efforts quickly gained momentum, aided in December 1978 by a Trail Agreement between Leo Drey and the Missouri Department of Natural Resources that provided for the establishment, construction, and maintenance of 13 miles of the Ozark Trail through Pioneer Forest. This stretch of trail, designated as the Blair Creek Section, is a key link amid the state and federal lands that connect the Ozark borderlands near St. Louis, MO with the Boston Mountains of Arkansas.

One feature of this effort has been the nearly three-decade-long relationship between Pioneer Forest and the Sierra Club. Largely through a dedicated crew of volunteers from the club's Ozark Chapter, extensive trail construction and maintenance have been carried out. In addition to the Blair Creek valley, tributary trails now lead through Laxton Hollow, Brushy Creek, and Satterfield Hollow. Plans are also underway to establish another moderately long-distance hiking trail through the Current River Valley in cooperation with the Ozark National Scenic Riverways. Newly completed, also in cooperation with the National Park Service, is a route linking Devil's Well by way of Pioneer Forest with Cave Spring on L-A-D Foundation easement lands along the Current River. Today, there are a hundred or more volunteers visiting Pioneer Forest each year to assist in trail-building efforts; they come from counties surrounding the forest as well as from around the state and beyond. All together these volunteer

labors have added more than 35 miles of hiking trails to Pioneer Forest, all of which are available to the public.

Pioneer Forest and L-A-D Foundation staff have also completed a Forest Interpretive Drive open to the public. Accessed from Highway 19 just south of Round Spring, this drive uses a brochure-based auto tour format, introducing motorists to Pioneer Forest, the Ozarks, and the Current River country using a combination of marked stops and explanatory text. The brochure also describes an interpretive walk through a remnant stand of virgin shortleaf pine forest that borders Highway 19 in this vicinity. Originally part of the large block that Drey acquired from National Distillers, the tract had been purchased for Highway 19 right-of-way in 1940 and then about 40 acres of it resold to the L-A-D Foundation by the Missouri Department of Transportation in 1996. Although the corridor of old growth pine is quite narrow, it nevertheless conveys a moving and evocative glimpse of the original Lower Ozark landscape.

### **Roger Pryor Pioneer Backcountry**

Drey had continued thinking about and working on ways in which his Pioneer Forest lands could contribute toward outdoor recreation. He was especially keen to find a way to take advantage of the unique size of the Forest.

After several unsuccessful attempts to work out a cooperative arrangement with the National Park Service and the state park system, in 1998 Drey presented to his staff an idea for a large area of Pioneer Forest to be managed for primitive outdoor recreation while also serving as a working forest. The largest contiguous area of Pioneer became the focus, including Pioneer and L-A-D Foundation lands along Current River between Round Spring and Two Rivers and extending north for 5 to 6 miles, an area of almost 61,000 acres. This breathtaking expanse includes much or all of the watersheds of three tributary streams to the Current River: Blair Creek, Brushy Creek, and Big Creek. The L-A-D Foundation's board of directors enthusiastically endorsed the concept, and, in fall 1999, Drey publicly announced his intent to establish the Roger Pryor Pioneer Backcountry in honor of one of Missouri's foremost conservationists.

In October 2001, amid much celebration, Pioneer Forest dedicated this landmark tract; the Pryor Backcountry is now the largest Missouri area dedicated to primitive outdoor recreation. At the same time, discussions began in earnest with the Missouri Department of Natural Resources for park division management of the area's recreational component while Pioneer Forest would demonstrate sustainable management of the model working forest. Together they would cooperatively manage the Backcountry under a lease agreement that breaks new ground for that agency as well as for Pioneer Forest. The Department of Natural Resources has provided staffing for trail and trailhead development as well as law enforcement. The Pryor Backcountry is not a wilderness—the forestry program in the area will continue—but its large, wild, and undeveloped character will be managed to provide visitors a primitive experience as free as possible from the intrusions of motorized vehicles.



## CONCLUSION

In both natural areas and outdoor recreation, Leo Drey has built an extraordinary record. He has demonstrated that responsible forestry is perfectly compatible, in fact works best, as part of a broad program of resource stewardship. As Donald Jackson observed in 1988 in *Audubon Magazine*, "Every state should have a Leo Drey." That is true, and we hope that other states can get somebody like him to help them out. But they cannot have Leo Drey; he belongs to Missouri.

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