Annual Report
of the
L-A-D Foundation

September 2008

"Incorporated in 1962, L-A-D Foundation is a Missouri private operating foundation dedicated to sustainable forest management, protection of exemplary natural and cultural areas in Missouri, and providing support and advocacy for projects and policies which have a positive influence in the Missouri Ozark region."

Pioneer Forest had been owned for many years by Pioneer Cooperage Company of St. Louis. In 1948, control of Pioneer Cooperage was sold to National Distillers Products Corporation, and the forest renamed Seton Porter Forest. Then in 1954 Leo Drey purchased all of the land, added it to the forestland he already owned, and renamed it all Pioneer Forest. In 1962, Leo Drey founded the L-A-D Foundation primarily to hold and protect areas of outstanding natural or cultural resource value in the Missouri Ozarks. In 2004, Leo Drey donated Pioneer Forest, as a limited liability corporation, to the L-A-D Foundation, to be managed as it had been for fifty years, as an exemplary model of conservative single-tree selection forestry.

ANNUAL REPORT

of the L-A-D Foundation *September 2008*

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COVER PHOTO: Taken from the floor of the forest, with a view through the sunlit canopy. Researchers are studying the woody debris and litter that results from Pioneer's management. Course woody debris provides a biologically rich habitat for insects, salamanders, and other small animals. Photo taken by Joe Marshall and his associates, using an 8mm fish-eye lens, Tree Ring Laboratory, University of Missouri Columbia.

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L-A-D Foundation

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From the President

The Foundation has had another year of significant accomplishment, and as chronicled in this Annual Report, we are in good position to continue that progress into the year ahead. This good news can be credited first of all to the strength of our mission, as derived from our Chairman and founder, and then also to the dedication and talent of our staff and board and the excellent working relationship between them.

One noteworthy accomplishment has been the successful completion of the Continuous Forest Inventory (CFI). This once-every-five-year measurement of Pioneer Forest trees has now extended beyond 50 years, and is recognized nationally as a source of reliable silvicultural data. The year 2007 was the first CFI conducted since Leo Drey's transfer of Pioneer to L-A-D Foundation ownership, and the first conducted during the tenure of Terry Cunningham as Forest Manager, though he has been involved in many previous CFIs during his long career on the forest. A big task, well done!

Another important achievement has been the long-awaited publication of the collected articles originating from the 2001 celebration of the 50th anniversary of Pioneer Forest under Leo's leadership. This publication by the Southern Research Station of the US Forest Service will bring the Pioneer story to a very important and much broader audience. It would not have been possible without the patient, persistent, and skillful editorial guidance of Greg Iffrig of our staff and Dr. Susan Flader of our board. Congratulations and thanks to them both.

One more milestone that merits note is the successful restoration of the original Pioneer Forest office in Salem. This small building was for more than 50 years the nerve center for one of the most important forest conservation enterprises in Missouri. It is connected to and the perfect complement for our new office space at the same site, and will serve as a fine setting for various Pioneer activities, and remind all of us of the modest but durable roots of our organization.

The Foundation does face challenges in the years ahead. At the moment, there is a "soft" demand for the trees that we provide. This is presumably related to the general weakness of the national economy and the housing market. Our staff is alert to these conditions, and is working to ensure that our products are presented and marketed in the most effective and efficient ways possible. The board's Management Committee is engaged in and supportive of these efforts.

We also face a serious challenge with the continued deterioration of the quality of the river resources and experiences of visitors managed by the National Park Service on the Current and Jack's Fork Rivers. This park, the Ozark National Scenic Riverways, is vital and central to our lands and our mission. We cannot stand idle while the assaults, including overdevelopment and illegal motorized intrusions, on these river corridors continue. We want to work with the Park Service and others to restore the integrity of these resources, the integrity that made them worthy in the first place of inclusion in the National Park System. We do not intend to waiver in this mission, and with your help we can succeed.

Those are only some of the important matters that you will find included in this report. We are grateful to our staff for another superb product of which we can be proud, and that we are pleased to share with a growing number of interested friends and observers.

Finally, we all want to extend a warm welcome to our newly elected board member, Rindy O'Brien, of Washington, D.C. Rindy has deep Missouri roots, along with broad experience and proven dedication to wise resource stewardship. She makes an excellent addition to our L-A-D team.

L-A-D Foundation

PIONEER FOREST MANAGEMENT
LAND ACQUISITION
RESEARCH
EDUCATION AND OUTREACH
RECREATION AND NATURAL AREAS
GRANTMAKING
PUBLIC POLICY ISSUES
ADMINISTRATIVE ISSUES
FINANCIAL SUMMARY

Pioneer Forest Management

We continue to manage Pioneer Forest by following Leo A. Drey's philosophy that conservative, sustainable, single-tree selection management will maintain and improve the forest while also producing a multitude of benefits for the land and the many people who enjoy and depend upon these resources. We conduct all of our management, recreation, outreach, and education with this underlying principle as our guide.

RESULTS OF PIONEER'S HARVEST

During Pioneer's fiscal year 08 (July 07-June 08) we harvested 4.88 million board feet which was 1.2 million board feet short of our planned harvest of 6 million board feet. The harvest slowdown began in October when several mills shut down for fall hunting season. This occurs each year, but this year we did not regain production, due mainly to poor weather conditions, especially during the spring and early summer. Records for the 2008 year show this year to be the wettest on record. The unusually wet logging sites on Pioneer were thus not suitable to sustain logging without damaging the forest.

The slowdown in housing, the increasing cost of fuel, and the uncertainty of markets are contributing to our difficulty in replacing and adding contractors to harvest trees on Pioneer Forest. Two contractors to whom we had hoped to sell timber this summer have declined, citing the uncertainty in the near-term timber markets. We are now searching for replacement contractors. We currently have two timber sale areas available and hope that we will have loggers working these sites in the near future.

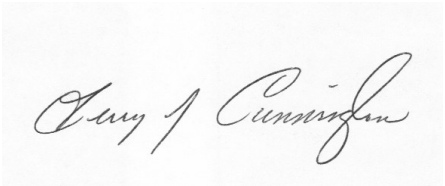
During the calendar year-to-date (January 1-August 18, 2008), we have harvested 32,991 trees, scaling 3.5 million board feet (International ¼ inch), and at this harvest rate, we are projecting a harvest for the year of 53,047 trees, scaling 5.6 million board feet. If we succeed in securing the additional two timber sales, we will reach the planned harvest of 6.5 million feet during the fiscal year 2009.

Prices. Despite the weak markets, we do not expect our price, which increased last year to $190 per thousand board feet for red and white oak and $180 per thousand board feet for all other species to change. The market slowdown seems mostly to have affected long-term commitments to timber volume production. We expect larger government sales contracts also to

be hurt by the slowdown. Since deposit costs for opening a sale on Pioneer are generally much smaller, we hope to maintain the present price and as steady an operation as the market will allow. We do predict that some of the smaller sawmill operators may leave the business, but look for the industry to recover over time.

Pioneer Office. The renovation and construction of office facilities have been completed. At this year's spring board meeting, the board was able to see the finished renovation of the original Pioneer office. Newly painted, with the electric, heating, and cooling systems upgraded, and the hardwood floor and classic pine walls refinished, the small white office probably has never looked better. We have displayed enlargements of a number of the black-and-white photographs of the forest, staff, and logging contractors in both the old office and the new addition. These reflect and interpret the history of our work on the forest.

New Pioneer Forester Hired. Last summer, we advertised an opening for a Forester on Pioneer, and we are happy to report that Jason Green was hired and became part of the staff. Jason is a native of Missouri and a graduate of the University of Missouri, School of Forestry. He completed his requirements for a Master's Degree in Forestry this past summer. Jason has been learning the marking technique and has shown his skill in contributing to the analysis of the most recent Continuous Forest Inventory. We welcome him to the team.



Terry Cunningham
Forest Manager
Pioneer Forest

"Resisting the impulse to liquidate forests for this short-term cash potential is perhaps the most difficult test that NIPF (non-industrial private forest) landowners face—and they face that test daily. The founder of Pioneer Forest, Leo Drey, and his committed staff of professional resource managers have met that test daily for 50 years. There is no better example of enlightened and abiding stewardship of NIPF land, or any timberland, than the stewardship practiced at the Pioneer Forest."

James Guldin, Project Leader and Research Forest Ecologist
'History of Forest Management in the Ozark Mountains' in *Pioneer Forest—A Half Century of Sustainable Uneven-Aged Forest Management in the Missouri Ozarks*, USDA Forest Service, General Technical Report SRS-108, pages 3-8.

Foundation Vice President Susan Flader talking with guests in the renovated office during the spring Board meeting dinner.
PHOTO BY HANK DORST

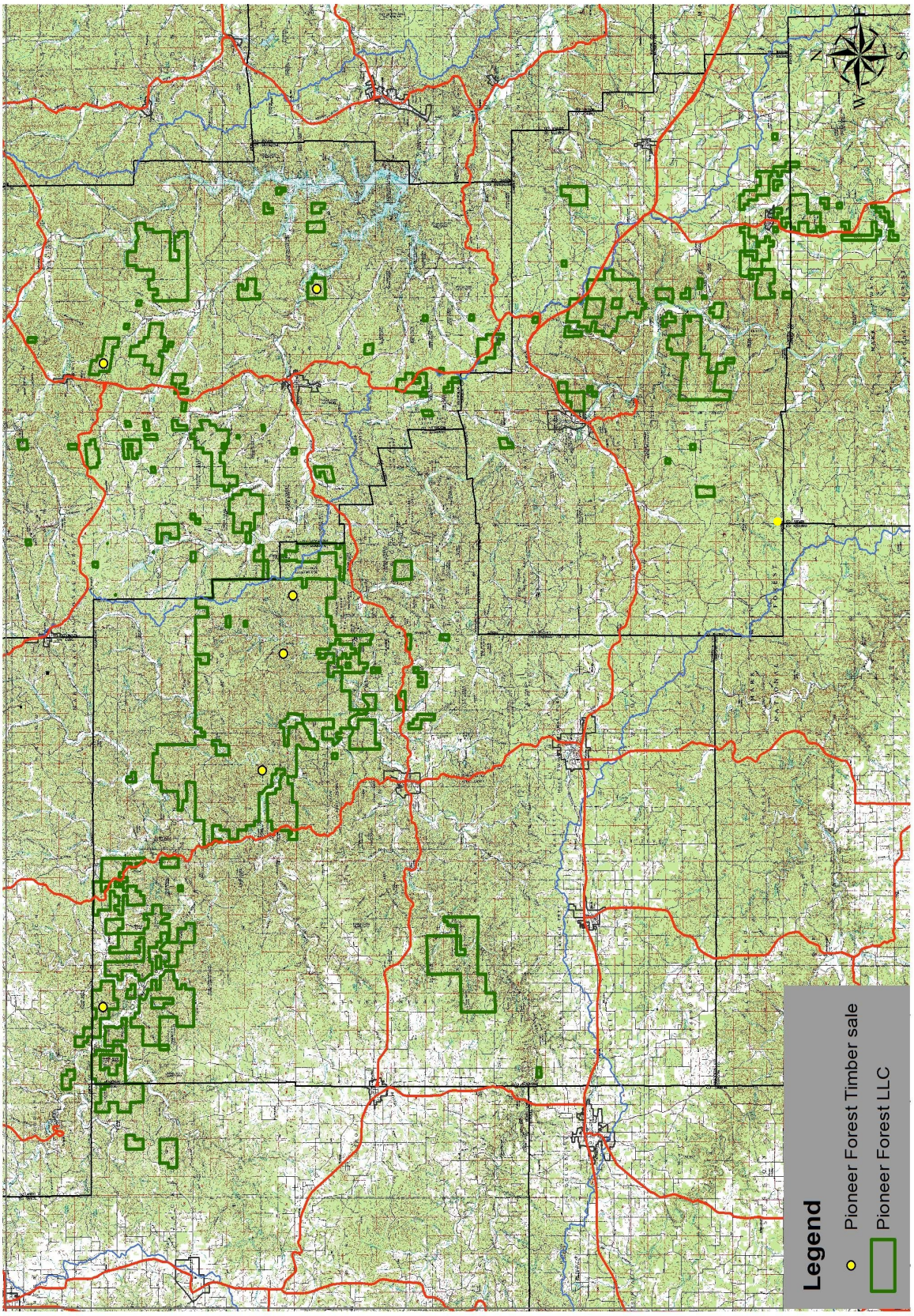
DESCRIPTION OF TIMBER SALES (SEE MAP ON PAGE 10)

Pioneer Forest had five timber sales active during this past year. Each sale is noted by a yellow dot on the accompanying map. All timber has been harvested using uneven-aged single tree selection. There are no clear cuts. All trees harvested have been selected, scaled, and marked by Pioneer's foresters.

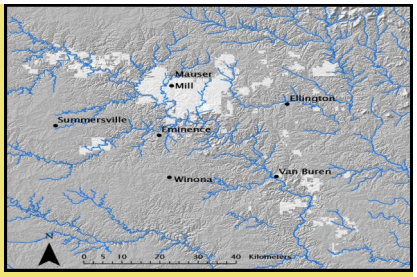
The Ron Harper Sawmill

We do not cut timber from any area recognized by Pioneer Forest for non timber resources and that are deemed to be sensitive (such as riparian corridors, or fragile plant communities including fens or glades) or from protected areas (such as natural areas or forest reserves).

Pioneer Forest has 661.5 miles of painted boundary lines. All boundary lines are repainted over a six-year rotation period. Pioneer crews repaint boundary lines every fall/winter, and we plan to complete approximately 100 miles this year.



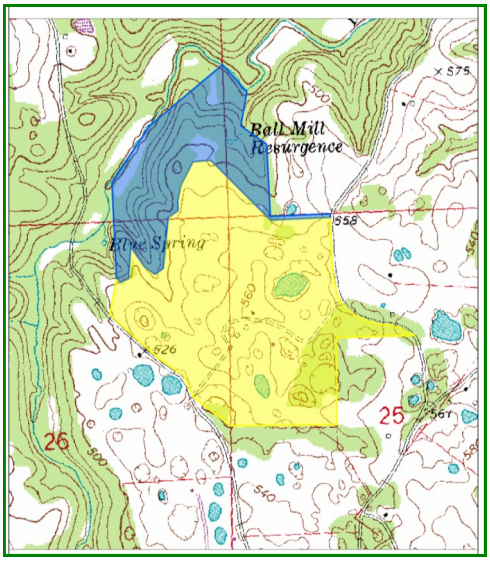
Locations of timber sale areas on Pioneer Forest during the period November 2007 through August 2008 are shown here by yellow dots. (red lines are highways; black lines show the county boundaries).



Land Acquisition

BALL MILL RESURGENCE NATURAL AREA/ BLUE SPRING BRANCH PROJECT AREA

At the time of last year's Annual Report, the Foundation had acquired a 43.69-acre portion of the Shafer Family Farm joining the Ball Mill Resurgence Natural Area in Perry County. This area is shown below in blue, along with the original 19-acre Natural Area. We also had negotiated an option to purchase an additional 139 acres (shown below in yellow) of the Shafer Family Farm and were awaiting word on funding assistance from the Holcim Settlement Group*. That option was due to expire October 1, 2007, and on that day of the Foundation's annual Board meeting, word was received that a grant of $409,500 from the Holcim Settlement Group had been approved. This allowed us to close on the acquisition of the additional land and bring the area's total acreage to 202 acres. The entire tract has now been leased to the Missouri Department of Conservation, and a management plan approved. This land is critical to the protection of the important karst resources of this part of the state. The management plan will conserve these resources and also restore over time the surface landscape to a more natural condition.

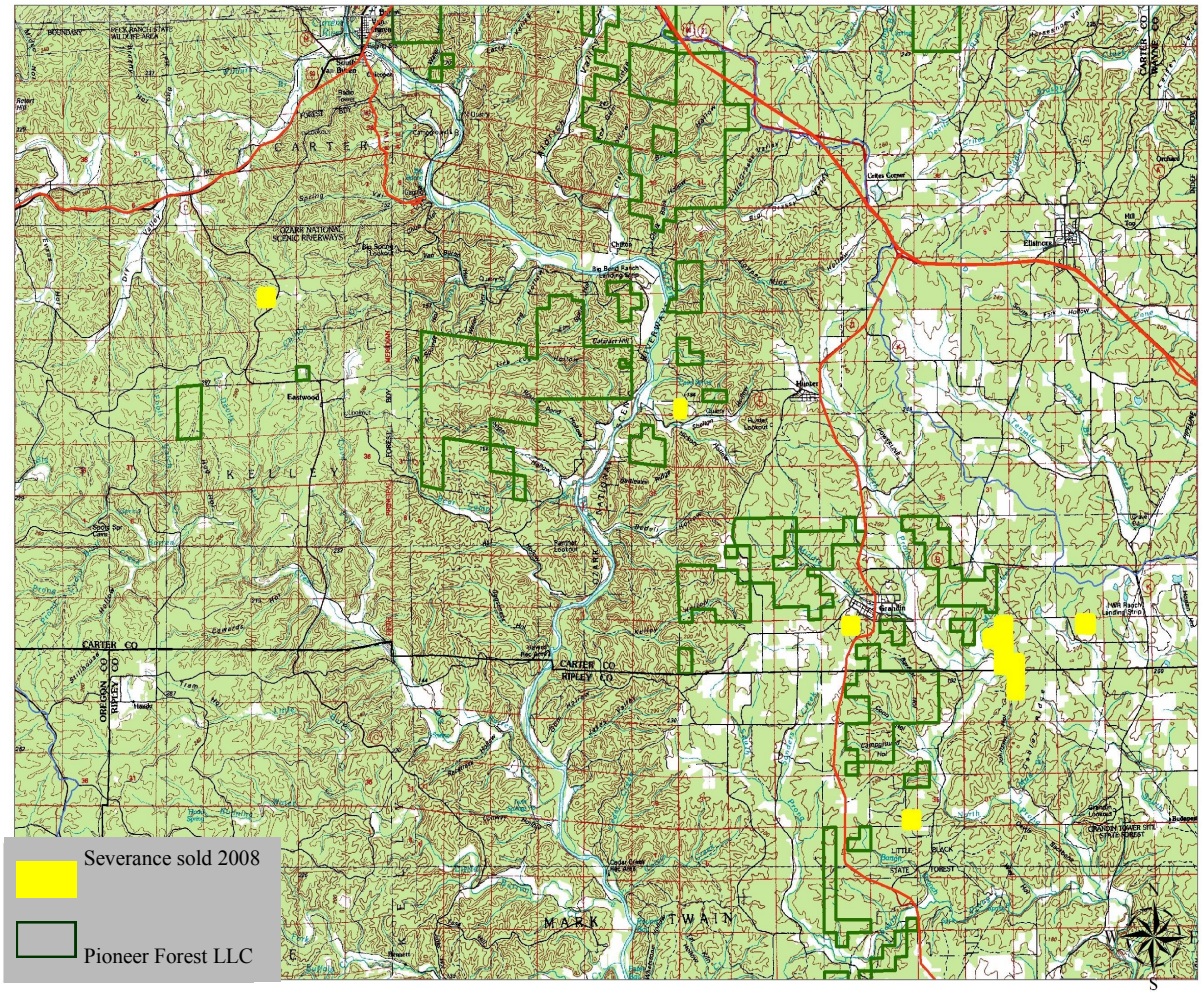


**Holcim Ltd., now operating in Missouri, was required to establish a fund for the purchase of open land as part of a lawsuit settlement that allowed the company to operate a cement plant along the Mississippi River in northern Ste. Genevieve County. The Settlement Group includes representatives of several conservation organizations and determines where to direct these mitigation funds. L-A-D applied for a grant from this group in early 2007.*

CONSOLIDATION OF PIONEER FOREST

According to a policy adopted by the Board, Pioneer seeks to consolidate its holdings to achieve priority resource protection goals and also to improve greater operational efficiency. This consolidation policy involves acquisition of inholdings, in part with proceeds from the sale of carefully selected "severance" tracts. The latter are generally small tracts that are isolated from Pioneer Forest lands, or are of unusually poor site quality, or have significant access problems. Each of these properties has been reviewed by staff in the field.

Since January, we have sold six pieces of such severance land, totaling approximately 500 acres. Proceeds from these sales are deposited in a special account restricted to purchases for consolidation goals. The amount in this land account stands at a little more than $317,000. The Foundation will apply these funds to the acquisition of key inholdings as they become available, using guidelines approved by the Board.



Research

Photo of Mike Adams conducting Pioneer's Continuous Forest Inventory this past year.
PHOTO COURTESY OF AMY COOLEY.

PIONEER'S CONTINUOUS FOREST INVENTORY 2007/2008

In 1952, National Distillers began a system of forest measurement known as Continuous Forest Inventory (CFI) on its property in the Ozarks. This system was established with help from Cal Stott, a USFS employee commonly referred to as the "Father of CFI." After Leo Drey bought National Distillers' land in the Ozarks in 1954, hiring most of the National Distillers' forestry staff in the process, the CFI inventory was expanded to include all of the other Pioneer Forest land he had already acquired. Since then, permanent CFI plots have been measured every five years, with the total number of plots growing along with the forest. A CFI "plot" or "point" is a 1/5-acre (52.7-foot radius) fixed circular area. The ratio of one CFI plot per 320 acres owned is maintained, and Pioneer currently has 496 of them, with two new plots to be established on recently acquired lands.

There are three sets of data which have been collected. Beginning in 1952, and for every CFI measurement since, each tree greater than 4.9 inches DBH (diameter at breast height, 4.5 feet above ground) is assigned a number and is tallied as an overstory tree. Tree numbers and DBH lines are repainted on all trees during each five-year re-measurement. Data taken on each overstory tree consist of: species, DBH, merchantable height, percent defect, presence of insect/disease/physical damage, crown class (mid/over/understory), and vigor. A second dataset was added to the CFI inventory beginning in 1992 for each CFI plot to include smaller trees. Each understory tree having a DBH between 1.6 inches to 4.9 inches is now also inventoried and is tallied by species. These CFI measurements are taken during each inventory, beginning in the fall and continuing through the winter (generally in the period October-March).

A third dataset was added, beginning in 1993, for 100 of the CFI plots where a smaller 1/50-acre (16.7 foot radius) circular plot is measured for tree seedlings. This third measurement is conducted during the following summer (for the 2007/2008 CFI, these measurements were taken during the summer of 2008). On these 100 plots, all tree seedlings greater than one inch in height and up to 1.5 inches DBH are measured for species, basal diameter (diameter at ground level), DBH (for trees taller than 4.5 feet), and total height.

When timber management occurs on Pioneer Forest, CFI plots are treated in the same manner as any other area of the Forest. When a tree needs to be removed according to Pioneer's single-tree selection style of management, it is marked and cut. This allows the CFI to reflect the actual volume and growth responses to single-tree selection, on a forest-wide scale.

The number of plots measured (496) represents a broad and representative cross-section of the forest. Plots sample a wide variety of slope positions, aspects, and overstory types. This allows data to be taken from a relatively small proportion of the forest, but still be representative of the land as a whole. The total of all CFI plots is nearly 100 acres of the forest.

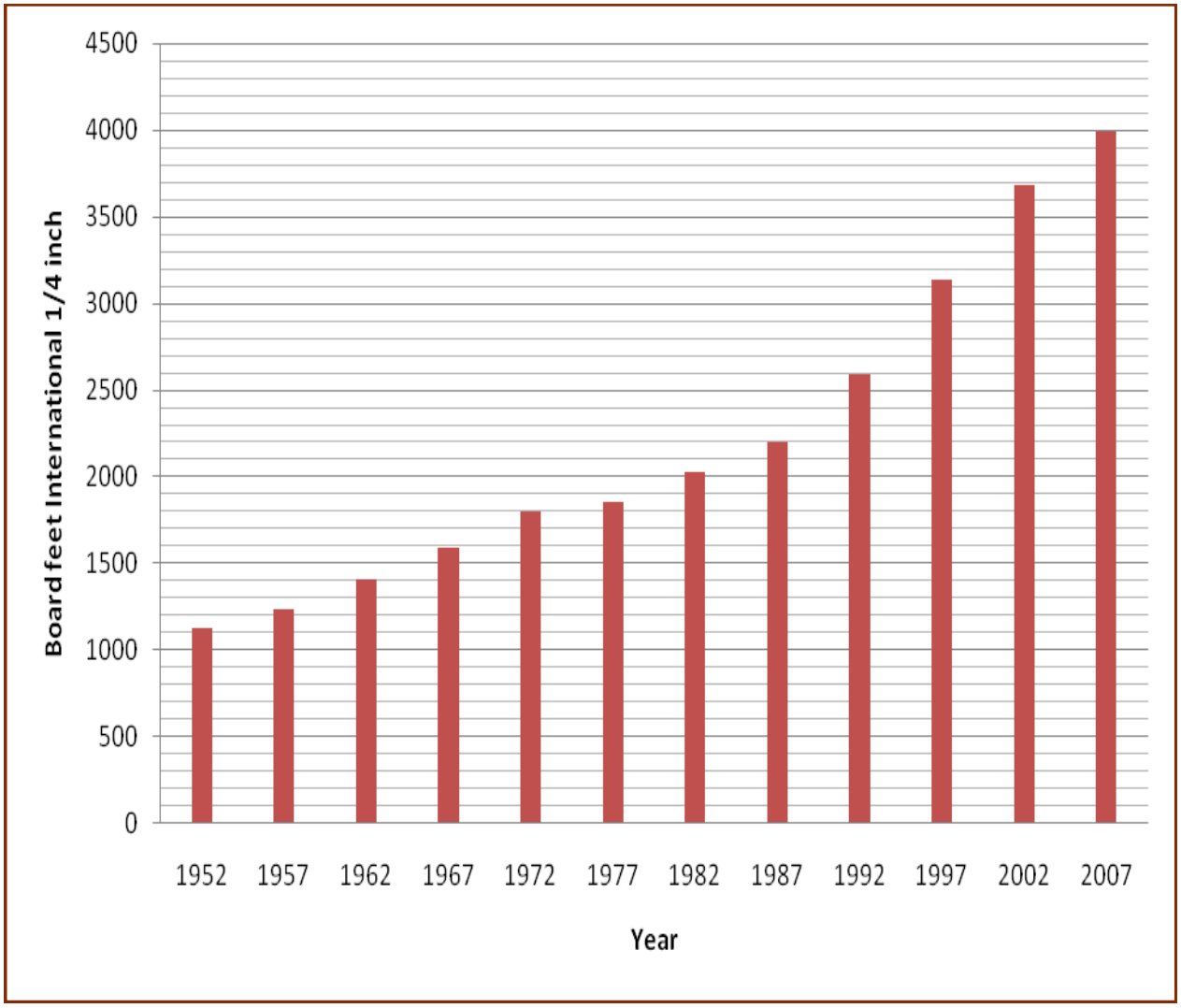
A key aspect of the CFI system is that with each measurement, five years of growth data are taken on every tree in every plot. With the establishment of baseline data for Pioneer Forest beginning in 1952, we have tracked the growth and vigor of individual trees, and recorded forest change by site quality under single tree selection over an extended period of time. From these data, we determine average forest-wide yearly growth per acre. This information is then used to determine yearly harvest projections.

Pioneer Forest is recognized as having the oldest continuously maintained forest inventory dataset in Missouri, and among the largest within this region of the country. Several post-graduate level studies have included the Pioneer CFI data, and forest researchers have shown interest in doing even more in-depth analyses. The CFI is a crucial management tool on the forest and also provides valuable data for forestry research in this region.

The 12th CFI began in September 2007 and was completed in early March 2008. The CFI continues to provide critical information on how single-tree selection is influencing the forest. It also provides oversight of the uneven-aged character of the forest and helps determine if management changes might improve the forest's health. The regeneration inventory for this cycle is still underway, and is expected to be completed by early September.

"In general, there is little or no evidence that shade-tolerant species have increased in importance in the overstory. Moreover, and more importantly, the accumulation of shade-tolerant trees in the smallest diameter classes does not appear to have suppressed the establishment and growth of intolerant species including the oaks. In the 2-inch diameter class, which included the greatest proportion of shade-tolerant species, the combined oaks and other intolerants outnumbered the shade-tolerant species nearly two to one."

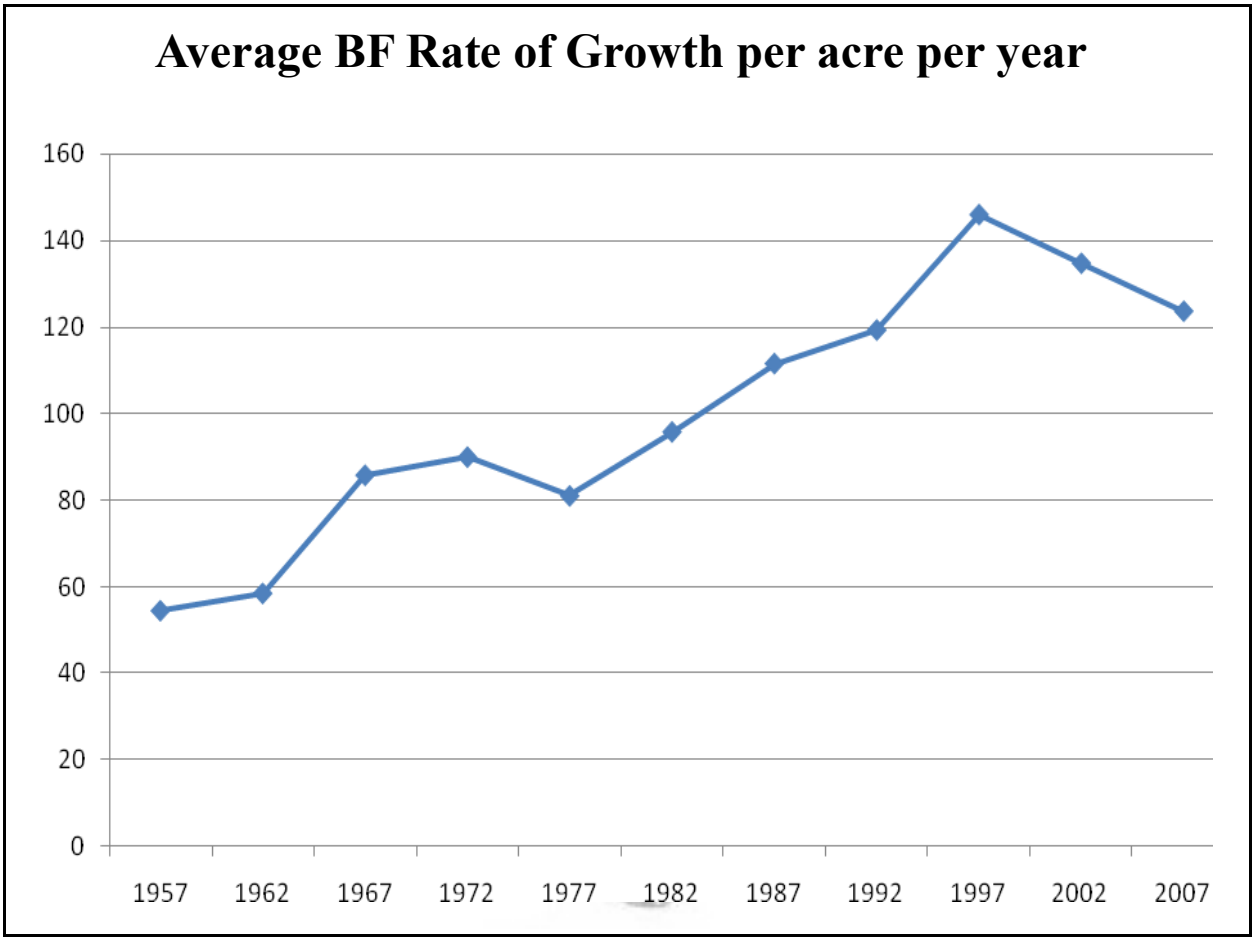
Edward F. Loewenstein, Auburn University
'Silviculture and the Long-Term Dynamics of Single-Tree Selection on Pioneer Forest,' pages 43-48 in *Pioneer Forest—A Half Century of Sustainable Uneven-Aged Forest Management in the Missouri Ozarks*, USDA Forest Service, General Technical Report SRS-108



Average volume per acre on Pioneer Forest for the years 1952-2007

The results of the 2007 CFI indicate that the total tree volume per acre is higher than all of the previous years of the inventory. In fact, between 2002 and 2007, the board foot average per acre increased by 313 board feet/acre. Volume per acre has increased even though the region has been experiencing a drought over the past several years. Furthermore, volume per acre has increased every year since the inventory was initially completed. The average volume per acre in 2007 was 3993 board foot/acre, which is an 8.5% increase in volume per acre over the past five years (3680 in 2002). This represents a 1.7% annual increase in volume.

As the Forest has become more fully stocked, the rate of growth has begun to slow down. The rate of growth decreased 8.2% from 2002 and 15.3% from its peak in 1997. Growth for this measurement period was 123.7 board foot/acre/year compared to 146 board foot/acre/year in 1997 and 134.8 board foot/acre/year in 2002. Since 1997, the rate of growth has declined an average of 1.5% annually. Several factors could be causes of the decline in the rate of growth. There are approximately three more sawlog trees per acre. Typically young, vigorous pole-sized trees have the most rapid growth. As they grow into the sawlog category, growth begins to slow

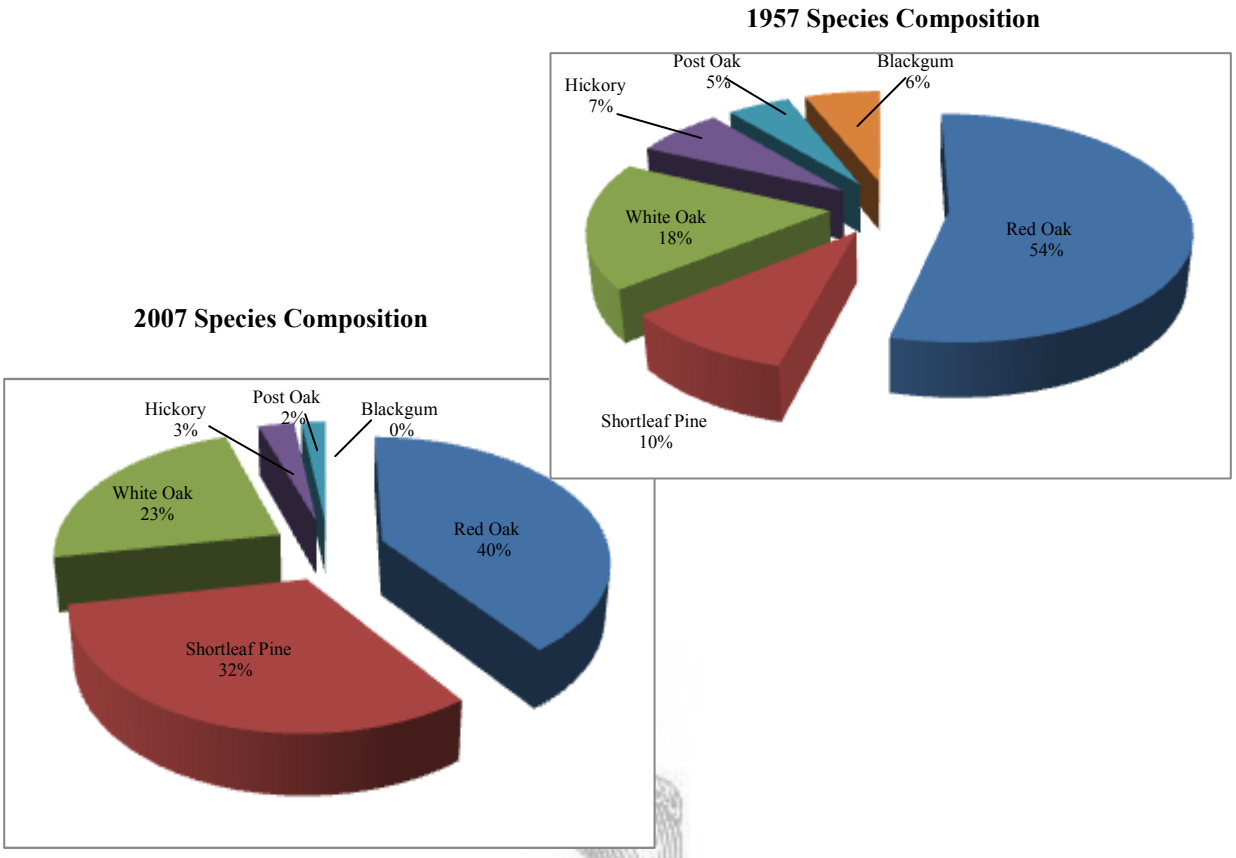


Average rate of growth per acre per year 1952-2007, measured in board foot/acre International ¼ inch.

down. The recruitment of three sawlog trees per acre could be a potential factor in the decline in the overall rate of growth per acre. Furthermore, droughty conditions over the past several years may be a factor. If this is the case, we expect growth to oscillate around the average maximum growth, demonstrating the sustained harvest potential from the Pioneer Forest method of single-tree selection management.

Red, black, and scarlet oaks continue to dominate Pioneer Forest's species composition, followed by shortleaf pine and white oak. Hickory, post oak, and black gum make up a relatively small, but important component of the species composition in the forest.

Historically, white oak and shortleaf pine made up a much larger component of forests in the Ozarks. However, intensive logging activities around the turn-of-the-century created conditions that favored oaks of the red oak group of species. On Pioneer, white oak and shortleaf pine have continued to increase proportionally compared to red oaks. This is due in part to recent drought, but also due to Pioneer Forest management activities that favor species that were dominant in the original forest around the turn of the 19th Century when the first cutting began.



Species Composition for the Years 1957 and 2007

The Forest appears to be in good health overall and continues to increase in volume per acre. There are some individual dead trees throughout the Forest; however, there appear to be no areas that have extensive mortality due to insects or disease.

The diameter distribution has changed modestly since the previous 2002 inventory. The number of trees per acre (TPA) between four and ten inches appears to be decreasing. However, trees within the 10-15-inch diameter class and the greater than 16-inch diameter class appear to be increasing in TPA on the forest. Pioneer Forest will continue to manage the forest in a way that maintains diameter distribution typified by uneven-aged single-tree selection. This is sometimes referred to as a "reverse J-shaped curve." Trees per acre across all size classes have increased significantly from the initial inventory in 1951.

Diameter Class	TPA 2007	Diameter Class	TPA 1951	TPA 2002
4-10	98.7	**4-10**	30.3	119.7
10.1-15	37.4	**12-15**	5.8	19.4
16.1+	6.6	**16+**	2.1	4.9

Diameter distribution

Pioneer Forest continues to be a healthy and productive forest managed under the uneven-aged single-tree selection method. The CFI will continue to play a vital role in evaluating forest management and changes in the forest.

Inventory and Sampling on the Randolph Tract

Most of the Pioneer Forest lands were originally dominated by white oaks, with some shortleaf pine. But several areas of the forest were dominated by the native pines and reflected the habitat structure and associated flora and fauna of that ecosystem. The most prominent example of a native Ozark pinery on Pioneer is located within a tract of several thousand acres south of Round Spring, known as the Randolph Tract in Shannon County. The Randolph Tract straddles Highway 19 and extends east all the way to the Current River. It was the last site in Missouri where the red-cockaded woodpecker, perhaps the most characteristic species of old growth southern "piney woods" was recorded. A narrow strip of such old-growth still stands along Highway 19 and is referred to as the "Virgin Pine," though it is only a remnant of a once larger pinery. Pioneer's Randolph Tract, however, retains many more old pines.

The virgin timber of this tract was unfortunately cut in 1946, but unlike millions of acres in the Ozarks, over 1000 "legacy" seed trees were left scattered through the tract, and a series of fortunate events led to the re-establishment of pure and mixed stands of shortleaf pine in its place. Pioneer has been taking care of these trees for decades and has recently focused on the area for a concentrated study of pine regeneration and management. The goal of this work is to adapt our method of single-tree selection in hardwoods to address our increasing forest wide component of pine.

Legacy shortleaf pine on Pioneer's Randolph Tract.
PHOTO BY GREG IFFRIG

In 2007, Pioneer staff contracted with Triangle D Mule Logging to inventory old growth pine trees on the Randolph tract, excluding those in the Virgin Pine. Of the original 1,076 trees left in 1945, only 79 were found still alive. The vigor of the surviving trees varied; but in general, all trees suffered from the basic maladies of old age. One of the first steps to developing our management was to

locate all such legacy trees. While these monarchs have fulfilled their duty by seeding in the next generation of pine, Pioneer staff is committed to maintaining their health as best we can and planning all future management considerations around their continued presence.

Vegetative Sampling. In 2007, Pioneer staff contracted with the Institute of Botanical Training (IBT), a local company with experience in botanical inventories, to help us develop a vegetative sampling program on the Randolph tract. Our hope is to establish baseline data of both overstory and understory components. The IBT devised a sampling method consisting of a series of small plots to be laid out in grids inside specific stands in the Randolph Tract. The initial inventory is scheduled for completion in September 2008.

Once the preliminary data collection is completed, Pioneer staff plans to investigate several variations of stand stocking and site treatment to determine their potential effects on overstory and understory health, diversity, and pine regeneration. Staff have sought outside counsel on this effort from a variety of organizations including university scientists, Smartwood, the Nature Conservancy, Missouri Audubon, and the Missouri Department of Conservation. We are eager to expand our list of partners and to learn from the examples of others.

Experimental treatments are expected to be applied in the coming year.

L-A-D Foundation

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Education and Outreach

L-A-D Foundation Website

Several updates were made to the Foundation's website this past year**.** Our opening page is the Foundation's mission statement. That was revised, adopted by the Board, and reads: "*Incorporated in 1962, L-A-D Foundation is a Missouri private operating foundation dedicated to sustainable forest management, protection of exemplary natural and cultural areas in Missouri, and providing support and advocacy for projects and policies which have a positive influence in the Missouri Ozark region."*

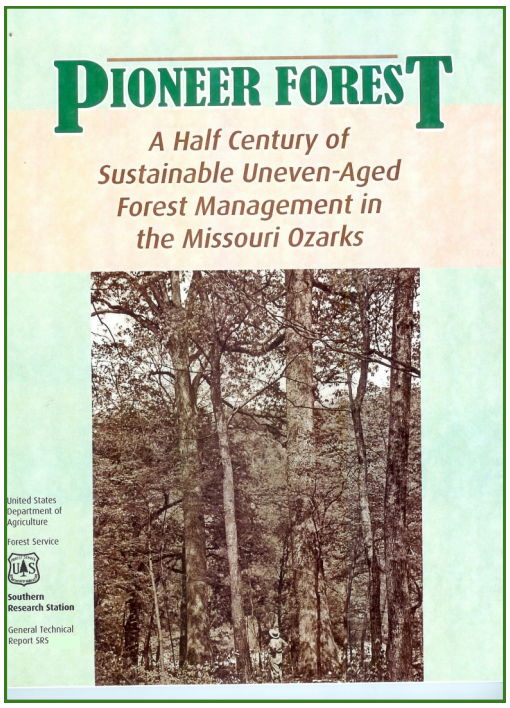
An announcement was temporarily posted on the main page for our recruitment of a staff forester, and potential candidates were able to submit their resumes for hiring consideration. There were also additions to the FSC flooring section of the website. As a result, the Foundation received several phone and e-mail inquiries on the product and availability. Also, summaries of completed projects from the 2006 grant recipients were added to the website, along with a list of the 2007 recipients whose project summaries will be posted in the coming months.

Pioneer Publication Printed

Following an extended period of negotiation, peer review, and painstaking editing, the Southern Research Station of the USDA Forest Service out of Asheville, North Carolina, has just published a collection of papers originating from the 50th anniversary conference celebrating Leo Drey's founding and leadership of Pioneer Forest held in St. Louis in 2001.

Entitled *Pioneer Forest—A Half Century of Sustainable Uneven-Aged Forest Management in the Missouri Ozark*s, this new publication includes a broad review of the role of Pioneer Forest in private forestland management, the history of Leo's long-term vision for the sustainable management of Pioneer, affirmation of the method of single-tree selection harvest, and overview of the science and art of the management technique. There are also comparative reviews of the influence of landscape roughness on the forest and of the impact of harvest activity on forest leaf litter. One paper reviews the role that Leo and the L-A-D Foundation have played in the statewide effort to identify and protect important natural areas within and well beyond the boundaries of Pioneer Forest.

The conference itself was the occasion for professionals, citizens, conservationists, and friends to gather and celebrate Leo's and the forest's history. Reflections from a number of those who assembled in St. Louis were recorded and transcribed for the publication. They depict the range of influence that the forest lands of Pioneer have had in Missouri and beyond.



Copies of the new publication are being distributed to Forest Service offices and public libraries across the country. A digital file version will also be available online for reviewing or printing through the USDA Southern Station's website www.srs.fs.usda.gov. Some copies are also being made available for the Foundation to distribute.

VISITS TO PIONEER, TOURS, AND OUTREACH

Wendell Berry and friends, December 2007. In response to an invitation from L-A-D President John Karel, noted conservation philosopher and author Wendell Berry, his son, and a Kentucky University professor, visited Pioneer Forest for a tour. Harvesting practices were discussed, as well as the benefit of long-term employees and the overriding concept of sustainable and ethical land stewardship. Ideas were shared on how a Pioneer approach to forestry might be adapted to meet the needs of other forest lands in Kentucky and elsewhere. Mr. Berry has since then published several articles that reflect favorably on the Forest and its staff.

"Pioneer's program of sustainable forest management is made possible, in part, by a sustained relationship between staff members and the forest. Pioneer employees typically stay for a long time, some for their entire working lives. These people thus have reason to think of themselves as belonging both to the organization and to the forest. They know the forest intimately, with affection, and in remarkable detail."

Wendell Berry, philosopher and author "Pioneer Forest," taken from Tree Rings, the Journal of the Yuba Watershed Institute, Spring 2008

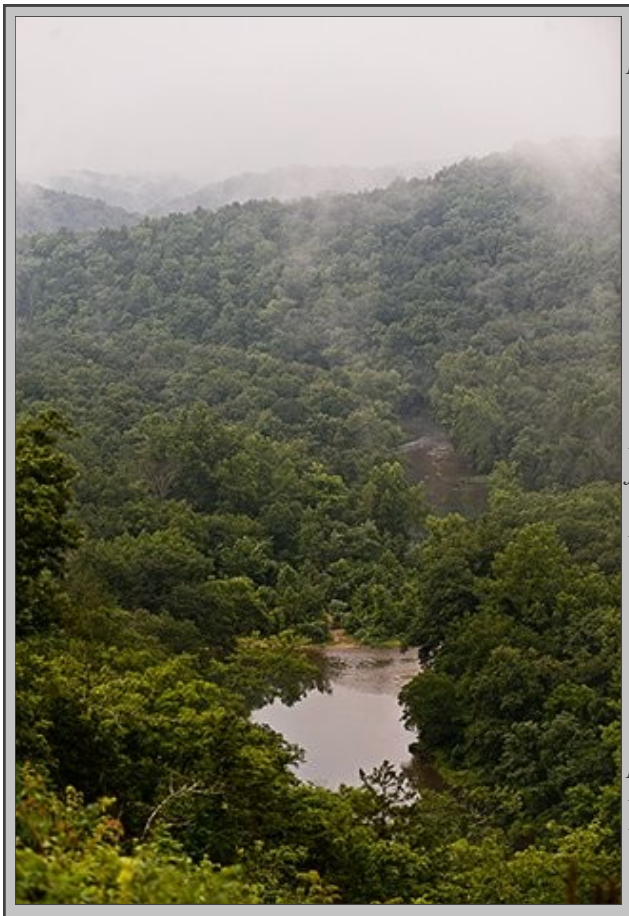
Evening with Wildlife, Salem, Missouri, March 2008. This event was sponsored by the Missouri Department of Conservation. Pioneer staffed a booth alongside the Missouri Department of Conservation, Mark Twain National Forest, and the Ozark Scenic Riverways. Brochures were passed out and questions answered regarding the forest, its location, and its management. Several hundred people from the community attended this event.

Grand opening of the Twin Pines Conservation Education Center, April 2008. Pioneer staff, as part of the opening ceremonies for this Conservation Department facility, presented an overview of the history of Pioneer Forest, its management, and its mission. Several hundred people attended.

Pioneer Forest Uneven-Aged Management Workshop, May 2008. Pioneer staff hosted foresters from the Arkansas Forestry Commission and Arkansas Department of Natural Resources for a day-long workshop on Pioneer's upland hardwood management.

Missouri Nature Conservancy, Board of Directors Annual Meeting, June 27, 2008. Pioneer staff led a field tour and provided a logging demonstration to interested TNC Board members and staff. Questions were answered regarding Pioneer Forest management, and thoughts were shared on sustainable timber management. The trip included a visit to Cunningham Sink in Shannon County.

Other field tours were held for the following organizations during the year: University of Missouri Forestry Camp, May 2008; Southern Illinois University Forestry Camp, May 2008; Missouri Tree Ring Lab (summer staff), July 2008; USFS Central Research Station staff, April 2008; the University of Missouri Fire Symposium, March 2008; and photographer Peter Hoffman with the National Network of Forest Practitioners, August 2008.



"The Ozarks in Missouri are a pretty mystical place. I was told repeatedly it is one of the richest areas in the world in terms of biodiversity. The prized Current River alone houses many exotic species who either reside here, and only here, or their strongest and most representative population is here. I was fortunate enough to meet a few people who understand the magnitude of the natural treasure they have at their doorstep and to learn about what they are doing to best utilize and preserve it.

"The folks who manage the Pioneer Forest, the largest privately held forest in the state (also FSC certified), are doing their best to keep the forest healthy while utilizing all of the timber that is there. Terry Cunningham, Forest Manager at Pioneer Forest, says they have not received one complaint in areas they are working that are adjacent to Mark Twain National Forest (highly trafficked and visible areas), but rather, they have actually been complimented on multiple occasions about their work. The management plan that they utilize, which is uneven growth management, mimics the natural process that an untouched forest goes through. Much of the forest (shown with the Current River) has been logged in the past five years. Can you tell? Neither could I."

About this project: two photographers, Jim Korpi and Peter Hoffman, were awarded fellowships from the Center for Rural Strategies and the National Network of Forest Practitioners during the summer of 2008 to photograph rural communities and forest practitioners. The photo and text above are taken from their 10-week journey across New England and the Midwest.

Celebrating restoration work on the Bluff School at the spring meeting of the Foundation's Board of Directors. Top left: Leo Drey; top right photo: from the back row left, Robert Howell and Leo Drey; in front are Phyllis (Riley) McCarter, Kay Drey, and June (Willis) Moyer; Wes Connell, contractor for the restoration project; Marsha Copeland, Show-Me Missouri Backcountry Horsemen; Dan Skaggs of Pioneer staff.

PHOTOS BY LAURA DREY

BLUFF SCHOOL GATHERING

A number of L-A-D Board members and staff, volunteers from the Show-Me Missouri Backcountry Horsemen, and members of the local community gathered on the banks of the Current River in May to inspect and enjoy recently completed restoration work on Bluff School. Bluff School is one of the few remaining one-room school houses in Shannon County. Many of those in attendance either went to school there or were related to someone who had.

The group consisted of about 25 individuals, including several who came on horseback. Everyone enjoyed conversation and refreshments. All agreed that saving authentic remnants of Ozark history such as Bluff School is important not only for those who were students and teachers, but also for their descendents who have come to value such links to our regional heritage.

Among the attendees was June (Willis) Moyer of Salem, a former teacher at the school in 1933. Mrs. Moyer shared her memories of students, teaching, and working in the community. She recounted riding on horseback four miles each way to teach class. Mrs. Moyer had not been back to Bluff school since she taught there, but commented that the school still looked good, and strongly approved the project.

Records from the Shannon County Clerk's office show there were teachers at Bluff School beginning as early as 1928 and until 1952. Today the building serves as a local landmark, situated across the river from the Flying W, an area of the Ozark National Scenic Riverways. The school is enjoyed by many in the local community and others who visit.

Bluff School had severely deteriorated over the years, and as a result, a commitment was made to renovate the building and provide protective measures against future weather damage. Pioneer Forest contributed labor and materials for work on the building; volunteers from the Backcountry Horsemen constructed a rail fence and hitching posts nearby, using materials provided by Big Creek Trail Ride, a local outfitter.

The original one-room Bluff School building is representative of many Ozark rural schools constructed between 1874 and 1940. By the 1890s, log structures began to be replaced by frame buildings, such as Bluff School. They served a variety of needs besides education, including community meetings and voting. During the early 1900s, there were more than 75 of these one-room schools in Shannon County; very few remain today.

FOREST STEWARDSHIP COUNCIL CERTIFICATION

*Re-Certification***.** The forest's first five-year Forest Stewardship Council (FSC) certification was set to expire in January 2008. In order to continue the forests certification program and maintain the chain-of-custody for our wood flooring product, a review and re-certification were required. In December, Pioneer Forest was visited by two Smartwood representatives (John Hodges and Foster Dickard) who conducted the re-certification. The review satisfied the requirements of Smartwood and the Forest Stewardship Council. The reviewers met with staff and suggested that some areas of Pioneer should be considered as 'High Conservation Value Forests.' The reviewers commented that much of the managed Pioneer land serves this role and

The Rainforest Alliance

PIONEER FOREST
705 Olive, Room 724
St Louis, MO 63101 USA

IS CERTIFIED FOR FOREST STEWARDSHIP COUNCIL
FOREST MANAGEMENT

Certificate Registration Code: SW-FM/COC-000234
Valid from: February 15, 2008 to February 14, 2013

CERTIFICATE SCOPE:

Single FM certificate based on FSC FM accredited standard

Wolfram Pinker
Managing Director, SmartWood Program of the Rainforest Alliance
65 Millet Street, Richmond, Vermont USA 05477

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FSC-certified products and species included in the scope of the certificate may be requested from SmartWood or found at www.smartwood.org.

This certificate and SmartWood's Web site customer fact sheet are not evidence that a product is FSC-certified; additional documentation is required from the certificate holder.

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FSC

qualifies. The Council Staff agreed that consideration would be given to this additional designation during the next review of Pioneer's management plan.

In February, we received notice that the re-certification was approved, and we were given a new, company-specific certificate code **SW-FM/COC-000234**, which is valid until February 14, 2013.

This past spring, the Foundation participated in the American Woodworking Institute Symposium and the Greening the Heartland Conference, both in St. Louis. Both events offered a great opportunity to educate potential green builders on FSC flooring from Pioneer Forest. The Foundation was part of a display where we distributed brochures and other literature to attendees.

Product display at the
Greening the Heartland Conference.
PHOTO BY HANK DORST.

MISSOURI NATURAL AREAS NEWSLETTER

Member's of Missouri's Natural Areas Committee asked for an article for their fall 2007 *Missouri Natural Areas Newsletter* (Volume 8, Number 2). An article co-authored by Greg Iffrig and John Karel was printed, highlighting Leo Drey's acquisition of Pioneer Forest, our own forest management and research, Current River Natural Area (Missouri's first), and how all of this now fits within the L-A-D Foundation.

Recreation and Natural Areas

CAVE SPRING TRAIL NEARING COMPLETION

This trail is named after one of the most significant natural features along the Current River, and is owned by the Foundation. Using a grant from the Recreational Trails Program administered by the Missouri Department of Natural Resources, the National Park Service (NPS) has continued work on the Cave Spring Trail and the NPS' adjoining trailhead/parking area at Devil's Well. Once again, significant trail construction work was completed this year by members of John Burroughs senior high school class. Most of their work either improved or completed construction along the route and relocated portions of the trail from the bottom of Parker Hollow to the adjoining hillside. Burroughs students volunteered along with a crew from AmeriCorps during the period of May 15-23.

The Foundation has worked with John Burroughs School for many years, encouraging graduating seniors to contribute time in the outdoors on Pioneer Forest, meeting one of their public service requirements for high school graduation. This year, the students also helped with trailhead development, maintenance, and other construction.

Above: 2008 Cave Spring Trail Crew, including students from John Burroughs School. PHOTO BY MARTHA RUHE; Right: Sign for the Cave Spring Trail at trailhead. PHOTO BY GREG IFFRIG.

Once it is completed, this trail will be a real outdoor asset in this upper Current River region of the Ozarks.

Work on the Cave Spring Trail has brought to our attention the problems associated with motorized vehicles trespassing in the Ozark National Scenic Riverways. At several points along the trail, illegal ATV use has damaged native plants, soils, and recreational quality. NPS staff have committed to enforcing closures and ticketing violators. This summer, NPS officials suggested a written agreement with L-A-D Foundation that would authorize their law enforcement staff to enforce park rules and regulations on our lands. Our staff have been aware of the problem on Pioneer's Cave Spring property for some time and agree that such authorization might help. For more on this issue, see the public policy issues section of this report.

CURRENT RIVER TRAIL PROPOSAL DISTRIBUTED

The concept and possible design for a "Current River Trail" has matured into a comprehensive field-based proposal. Using notes from volunteers, a report entitled *Current River Trail—A Proposed Route*, was produced by the Ozark Trail Association and the L-A-D Foundation in June of this year. The report provides a description and detailed mapping of the route between Round Spring and the mouth of Brushy Creek. Copies of the report have been transmitted, along with a cover letter, to both the Missouri Department of Natural Resources and the National Park Service. Copies have also been sent to a number of the volunteers who have conducted the field work for this new trail.

We hope that review and approval of the trail can be completed soon. There is great interest among volunteers in this new trail and a strong desire to be able to help install it soon. Volunteer interest in the Current River Trail has prompted the Ozark Trail Association to request funding assistance as part of a larger grant proposal to the Missouri Department of Natural Resources' Recreational Trails Program.

"The concept for the Current River Trail has been under discussion for some time, but before now, there has been no field-tested inventory of actual site conditions and opportunities. Extensive field work has nevertheless been underway, and a remarkable contribution of sustained volunteer effort has led to the draft proposal you now have in hand.

…We know that bringing this now potential asset into reality will involve the approval and cooperation of several agencies, especially the National Park Service and the Missouri Department of Natural Resources. We urge you to move this proposal forward; the citizen volunteers have already invested an impressive down payment in sweat equity.

For our part, we pledge assistance and support. This is a project that will add substantial value for Missouri, and L-A-D wants to help."

John Karel,
Letter to Missouri DNR and National Park Service, June 20, 2008

ROGER PRYOR PIONEER BACKCOUNTRY

The idea for a Backcountry was conceived by Leo Drey as early as the 1970s and began on Pioneer Forest in 2001. For some time, we have been concerned that several of the goals for the backcountry have not yet been achieved.

At the outset, Pioneer Forest lacked sufficient staffing to establish and ensure a genuine backcountry recreation experience on the 61,000-acre designated backcountry tract. In 2002, a contractual lease arrangement was initiated through the MoDNR's Division of Parks to provide the staff and experience to successfully protect the backcountry resource and manage the user experience in this area. Lease language has also been adapted to provide the necessary state authority to provide law enforcement within the backcountry. Although many users have enjoyed wonderful and authentic backcountry experiences in the Roger Pryor, we have not been able to provide such quality experiences on a reliable basis because of the proliferation of illegal motor vehicle trespass in this part of the forest. Sometimes, as a result, the experience our visitors have had has not matched the expectations nor the true potential for this large area. The Foundation is committed to making this project a success and is working with DNR to achieve the goals for the area.

Among the specific needs are increased visibility of law enforcement, adoption of an effective management plan, commitment to trail construction and maintenance throughout the backcountry, and control of motorized access into the backcountry.

AREAS UNDER SPECIAL MANAGEMENT AGREEMENT

In addition to the Roger Pryor Pioneer Backcountry property, two other properties are leased to the Missouri Department of Natural Resources: Dillard Mill State Historic Site and Grand Gulf State Park, both of which have DNR staff either on-site or nearby. The Foundation leases seven areas to the Missouri Department of Conservation for management as Natural Areas: Ball Mill, Clifty Creek, Dripping Springs, Hickory Canyons, Horseshoe Bend, Piney River Narrows, and Rocky Hollow. In addition, we cooperate with the Missouri Department of Conservation on four other sites registered as units of the Missouri Natural Areas System: Current River, Pioneer, Lily Pond, and Triple Sink. A table on page 41 has more information.

Listed below are several specific management issues that we have addressed during the past year.

Missouri Department of Conservation Overview. With our recent acquisition of additional lands in Perry County, the Foundation needed to amend provisions of the existing lease. At the same time, the lease document was reviewed and updated with revised language throughout. The new lease was approved by both organizations on March 4.

Ball Mill Resurgence, Perry County. During last year's fall meeting at Tower Grove Park, the Board received confirmation that the Foundation had received funding from the Holcim Settlement Group for the purchase of an additional 139 acres. That allowed us to sign an option

that the Foundation negotiated with the owner and to execute the actual purchase. The Foundation's property at Ball Mill now totals 202 acres.

With this enlarged property, we also negotiated a more detailed management plan discussion with staff of the Missouri Department of Conservation that now includes the new lands which join the original adjacent 19-acre Ball Mill Resurgence Natural Area. Combining the two additional purchases in 2008 from the Shafer family, the Foundation now owns and manages approximately one-quarter mile along Blue Spring Branch, the rich northwest-facing hillside, and more than a hundred acres to the south of the rolling Perry County Karst Plain.

With this more sizeable land base, we have begun to use the term "Blue Spring Branch Project Area" to describe the 202-acre property. On July 17, the Blue Spring Branch Project Area Management Plan was approved by both the MoDOC and the MDNR. This plan addresses restoration and management activities over the next five years and includes protecting the karst resources on and under the surface, re-establishing the native grassland/woodland character of the landscape, and developing interpretive and educational activities to be based at this site. It is hoped that these efforts will inspire improved stewardship of other karst-related resources regionwide.

Bluff School and Medlock Cave Forest Reserve, Shannon County. During this past year, we were also able to complete the renovations of the Bluff School building. This work focused on structural maintenance rather than full restoration. Repairs were made to the walls inside and out; all walls were repainted; repairs were made to the floor; new window treatments will help to weatherize the building; and the tin roof is to be replaced. Elsewhere in this report is more detail on our spring event held at the school to celebrate the work that was completed this year.

Clifty Creek Natural Area, ***Maries County***. Funding for Clifty Creek was requested by the Missouri Department of Conservation and was granted by the Recreational Trails Program of the Missouri Department of Natural Resources. These funds were announced in the winter of 2007. This has allowed trail construction work to continue on the loop trail on the north side of the creek. This work will be completed in time for a planned October 18 dedication. In addition, the parking lot has been moved by Conservation Department staff to a more convenient, wooded location on state-owned land.

Cunningham Sink Forest Reserve, Shannon County. In December, as part of our tour for the Wendell Berry visit, we inspected a site on Pioneer that Terry Cunningham considers an excellent representation of Pioneer Forest management.

Terry Cunningham at Cunningham Sink, showing the water-filled basin with overcup oak.
PHOTO BY GREG IFFRIG

This site happens to include a sizeable sinkhole which, according to routine Pioneer marking standards has not been cut or crossed by motorized skidders. As we walked across the sinkhole, several noted the presence of overcup oak, indicated by its distinctive acorn. Overcup oak is a species typical of the bottomland forests of Missouri's Mississippi Lowlands; its presence in northern Shannon County is notable as a north and western extension of its range.

Then, early this spring, another visit was made to this same sinkhole while the mating season for several amphibians was in full swing. With a remarkable vocalization of spring peepers and wood frogs underway, this location for the wood frog is a new record for this species. Also, hundreds of spotted salamanders were present in the spring pool across the entire bottom of the sink.

It is clearly a biologically interesting and significant site, in some ways comparable to the five-acre Overcup Oak Sink Natural Area in southernmost Shannon County. The property including the sinkhole has been in Pioneer ownership for many years. The harvest activity on the surrounding wooded hillside has obviously been conducted so as not to harm the sink itself or its wooded character that allows for long-term moisture retention and the flourishing of moisture-loving plants and animals.

As a tribute to this high-quality stewardship, the site has been named Cunningham Sink and has been designated as a Forest Reserve, bearing Forest Manager Terry Cunningham's name. It will be added to Pioneer's list of forest reserves in the forthcoming Pioneer Forest Management Plan.

Virgin Pine, Shannon County. The Virgin Pine bordering each side of Missouri State Highway 19 south of Round Spring (41.42 acres) was acquired by the Missouri Highway Department in the 1930s. For many years, the Department mowed underneath the large shortleaf pine, but recently ceased this practice. The L-A-D Foundation acquired the virgin pine tract from the Highway Department in 1996.

Although the previous mowing was not a strictly natural process, it did have the positive effect of reflecting the open and park-like original character of this remnant stand of trees. Since suspension of the mowing, however,

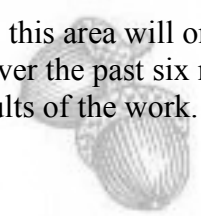
the dense growth of saplings and brush had reached a point of diminishing the area's natural and visual integrity. Over the years, this had been an important and inspiring site for many, and we have been considering a long-term management plan for the Virgin Pine.

In developing a plan for the site, we have worked with the Current River watershed's Conservation Opportunity Area (a project of public and private landowners in the region), and others also interested in the management and restoration of Missouri Ozark pineries. We were able to secure an $1800 cost-share assistance grant through the Missouri Department of Conservation as part of other efforts already underway in Missouri to address shortleaf pine management.

Pre-settlement pineries were largely open underneath, and this area in particular was home to red-cockaded woodpeckers, a bird dependent upon the more open pine woodland character. That is the landscape view we hope for here.

This past winter, we contracted for removal of much of the brushy understory growth. The cutting has made a remarkable difference, providing the shortleaf pine with considerably more breathing room and the increased open space to which they are accustomed.

Once the cut stems begin to disappear, this area will once again need to be cut or mowed periodically to retain this condition. Over the past six months, the Pioneer staff has received several compliments on the visual results of the work.



L-A-D Foundation

FOREST MANAGEMENT
LAND ACQUISITION
RESEARCH
EDUCATION AND OUTREACH
RECREATION AND NATURAL AREAS
GRANTMAKING AND COMMUNITY OUTREACH
PUBLIC POLICY ISSUES
ADMINISTRATIVE ISSUES

Grantmaking and Community Outreach

Photo courtesy of the Summersville Mill Project

2007 Foundation Grant Awards

During the past year, the L-A-D Board Grants Committee, under the leadership of Chairman Jerry Vineyard, recommended seven grants to be given to nonprofit, research, and public interest organizations. These grants were awarded by the L-A-D and Ozark Natural Resources Foundations in the fall of 2007 for work that continued during this current year. Highlights of the goals for each organization include:

Bonebrake Center of Nature and History Salem, Missouri—
Launching a youth program in Salem to promote awareness of nature and the history of the Ozarks, through a variety of hands-on learning experiences.

Watershed Committee of the Ozarks Springfield, Missouri—
Currently building a "Sustainable Forestry Learning Station" at Valley Water Mill, in coordination with existing learning stations for lakes, springs, streams, and wetlands.

Ozark Natural and Cultural Resource Center Salem, Missouri — Supporting continuing development of exhibits, displays, and presentations that explain and educate visitors about the Ozark region.

Missouri River Relief Columbia, Missouri—
Supporting a clean-up effort on 15 miles of the Missouri River from Dundee Island to mile 60, in conjunction with several other funding entities.

The Nature Conservancy, Missouri Chapter—
Launching a project to recognize and better manage forested land in the Current River watershed and implement a landowner outreach program.

TUMBLING CREEK CAVE FOUNDATION ***Protem, Missouri*** —Leveraging federal and other funds to achieve groundwater protection benefiting the Tumbling Creek Cavesnail (a federally designated endangered species found nowhere else), and nine other species of conservation concern.

The Springfield Plateau Grotto— Writing, printing, and distributing a handbook for owners of caves and karst lands, to assist them in the wise use and management of their resources.

Each organization will complete a progress report for the grant before the end of fall 2008.

2008 Work of the Grants Committee

The 2008 grants cycle is currently underway. The committee received 15 proposals seeking funding this year. The following organizations were the finalists:

· ***Missouri Coalition for the Environment***— A grant to hire a Bioregion Director to organize citizen conservation efforts around the Ozark National Scenic Riverways.

· ***Great Rivers Environmental Law Center***—A grant to investigate illegal and resource-damaging actions on the Ozark National Scenic Riverways.

· ***Real Community Radio Inc***.—A grant to support a local radio station in the Ozarks area that will inform, educate, and entertain listeners on topics pertaining to the region's environment.

· ***Show-Me Missouri Backcountry Horsemen***—A grant toward the development of teaching aids that will educate trail riders on the importance of minimizing equestrian impacts on public and private land.

These projects will be submitted with specific recommendations from the Grants Committee to the full Board at the Foundation's annual meeting in October. The Board may fund some or all of the proposals.

Terry Cunningham (far right) presenting a check to representatives of the Summersville Mill project. PHOTO COURTESY OF THE SUMMERSVILLE *BEACON*.

COMMUNITY SUPPORT

In addition to L-A-D grants, Pioneer Forest has been an ongoing contributor to various community groups and projects.

The following are some of the projects to which Pioneer contributed during the past year:

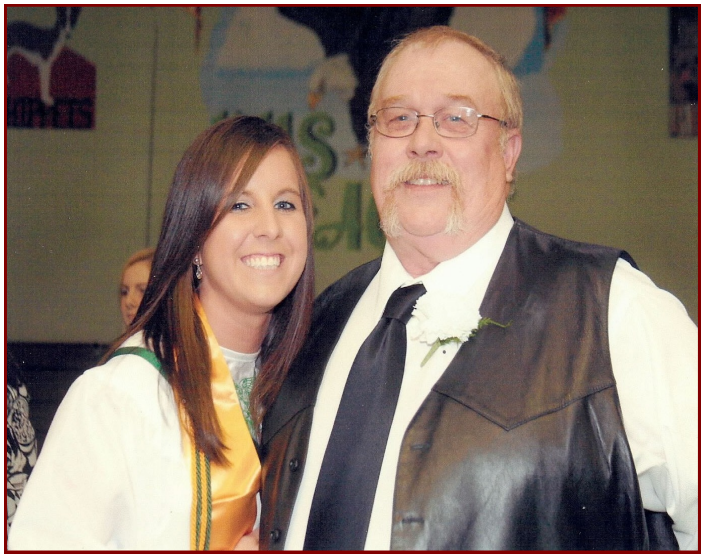
College scholarships of $1500 each to two high school seniors, one from Bunker High School and one from Eminence High School.

Two loggers received additional training through the Professional Timber Harvester class. The training was paid for by Pioneer.

Funding for an Upper Current River cleanup.

A donation to the Eminence High School *Alcohol and Drug-Free Program*

A contribution to support the Mountain View Rotary Outdoor Classroom.



Pictured is Dan Skaggs and scholarship recipient Abbigail Stluka.

Funding for restoration of the Summersville Grist Mill.

Support for Shannon and Carter Counties' participation in the American Cancer Society's Relay for Life, a local fundraiser for breast cancer research.

"I would like to take this opportunity to thank you for awarding me the Pioneer Forest Scholarship. It was such an honor… . Knowing that actions speak louder than words, I will do my best to prove that you chose a very deserving recipient… ."

Abbigail Stluka
Graduating Senior
Bunker High School

Support for operation of the Ozark Natural and Cultural Resource Center, in Salem.

Pioneer Forest contributed more than $5,000 to these causes and plans to support several other projects in 2008.

Public Policy Issues

NATIONAL PARK SERVICE: OZARK NATIONAL SCENIC RIVERWAYS

The Foundation properties within the Current River watershed are substantial, including more than 30 miles of river frontage, nearly 1000 acres under NPS scenic easement, and thousands of acres of lands directly adjacent to the Ozark National Scenic Riverways, all of which provide a significant and protective buffer for the Current and Jacks Fork Rivers. The management for this park, established in 1964, should reflect the high standards long established for other units of the National Park System. Unfortunately, it has not done so. A growing number of degrading uses have begun to fray core park resources and to segment parklands into areas for urban-style recreation.

In late July, a delegation of our staff and board met with the new ONSR Superintendent Reed Detring and several of his staff at Round Spring. We encouraged him to restore these important resources, providing the highest level of care and stewardship, and resolve to change the plight of this nation's first river park.

In addition to our joint efforts with NPS to complete the Cave Spring Trail and develop the proposed Current River Trail, we mentioned many of the problems we see from ever-increasing illegal motorized access of both ATVs and trucks (especially the gouging of a destructive and illegitimate road at Flying W), the ever-increasing impacts from unregulated and over-concentrated horse use within the park, and the need for better care of the public scenic easements held by the NPS on a variety of otherwise privately-owned lands.

Flying W Planning Document. Plans for this area were mentioned in last year's Annual Report. Our comments were submitted in July 2007, and no further information has been forthcoming.

General Management Plan. The park's new management plan was also discussed. The Foundation responded during public meetings to discuss the early development of issues. We understand the next opportunity for public input will be a draft document to be available perhaps within the year.

CURRENT RIVER CONSERVATION OPPORTUNITY AREA

The Foundation and Pioneer Forest are partners in the multi agency effort known as the Current River Conservation Opportunity Area. The objective of this group is to assemble both federal and state agencies and other landowners within the watershed, and to consider and discuss a variety of cooperative ventures including cave protection and shortleaf pine management. Members include the Missouri Departments of Conservation and Natural Resources, Ozark National Scenic Riverways, Mark Twain National Forest, Nature Conservancy, Cave Research Foundation, and others.

This past year, we became more directly involved when a tract of land near Cedar Grove (with adjacent lands owned by MoDOC, Pioneer Forest, National Park Service, and Nature Conservancy) was threatened by a proposed trade of public conservation property. The broader public had inadvertently been overlooked. We raised the issue and were joined by Nature Conservancy staff to bring the full impact of the proposal into more careful consideration. One result should be that the acquisition and disposition of public lands will be undertaken with a broader and more collaborative view in the future.

MARK TWAIN NATIONAL FOREST

At the beginning of the year, Foundation President John Karel and Liaison Greg Iffrig met with the Acting Supervisor of the Mark Twain National Forest, Paul Strong, to raise several issues of interest to the Foundation and Pioneer Forest.

Strong expressed interest in the work of Pioneer Forest. We provided a copy of the Foundation's 2007 Annual Report and Pioneer brochures. Information was also offered regarding Forest Service property adjacent to Foundation land at Dillard Mill. We have been hoping to consolidate a small area there into the Dillard Mill State Historic Site. We also mentioned the proposal to designate seven additional areas as wilderness in Missouri. We expressed the Foundation's support for that proposal, and told him of our ownership of 220 acres within the proposed Lower Rock Creek Wilderness.

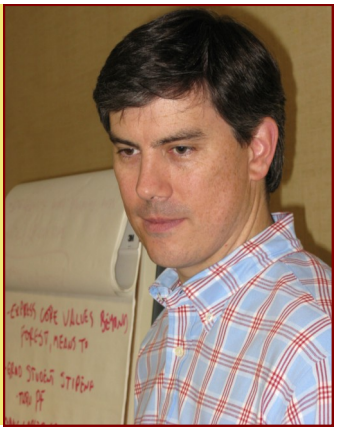
Finally, we also discussed Greer Mill in Oregon County, south of the Eleven Point River along Highway 19. The mill has not been maintained for many years. The structure, which sits just off the highway, has been deteriorating as a result of the saplings and other brushy vegetation growing up around it. A combination of cutting and clearing is essential to allow the wooden structure to dry out. Mr. Strong expressed agreement and assembled a team of AmeriCorps workers to spend at least some time on site. Unfortunately, on such short notice, the Forest Service and the Foundation were unable to secure the permission required from the caretaker and the easement holders in time to make this opportunity work. We remain hopeful that progress can be made for the mill.

WILDERNESS IN MISSOURI

The Foundation joined a growing group of supporters for a proposal to designate seven additional wilderness areas in Missouri, six on the Mark Twain National Forest (Lower Rock Creek, North Fork, Smith Creek, Spring Creek, Swan Creek, and Van East Mountain) and one whose land ownership is shared by the Ozark National Scenic Riverways and the Mark Twain National Forest (Big Spring). This proposal totals just under 50,000 acres, and is considered to be a moderate and reasonable percentage allocation of the substantial federal lands in our state.

Work has been underway to assemble representatives of nearly 30 organizations across the state that have endorsed the proposal. These groups include both statewide and local organizations representing a wide variety of outdoor, recreation, wildlife, business, and conservation interests. The proposal has also been distributed to the Missouri Congressional delegation.

Administrative Issues



Attorney Chris Thompson of Lowenhaupt & Chasnoff, LLC. PHOTO BY LAURA DREY

OZARK NATURAL RESOURCES FOUNDATION

At the end of 2007, the Foundation's legal counsel advised the Board that the assets of the Ozark Natural Resources Foundation had been transferred to the L-A-D Foundation, and that the Ozark Natural Resources Foundation no longer exists.

EMPLOYEE HANDBOOK REVISIONS

The Management Committee considered Pioneer Forest staff retirement, annual leave, and the holiday schedule. In February, a revision was made to include the option of retiring at age 62, along with a reduced retirement benefit based on similar provisions of the Social Security Administration for early retirement.

In July, the employee annual leave time was adjusted to provide four weeks following the 15th year of employment and five weeks of leave following an employee's 20th year of employment. The holidays recognized each year were also adjusted to provide for 10, which now includes the Friday after Thanksgiving and Christmas Eve. The holiday list also incorporates a personal holiday that each employee may take at any time during the year.

FOREST CARBON SEQUESTRATION AND CARBON MARKETING

This issue is being broadly discussed and promoted by various entities and from various points of view. As the largest private forest landowner in the state, we must be as informed as possible about this issue. Pioneer's CFI dataset makes the measurement of carbon sequestration possible. The nature of forest management conditions on Pioneer, and our certification among the world's green forests, renders us as an attractive model for good forest management.

Accordingly, the Foundation President has appointed a board and staff task force to study and review the issue of carbon sequestration. Staff have begun research of this issue and are gathering and sifting through an array of information. More will be forthcoming and under discussion in the near future.

Financial Summary

FINANCIAL SUMMARY 2007-2008

	2007	2008
Statement of Financial Position		
Assets		
Cash	671,631	448,567
Receivables	62,649	67,175
Prepaid Expenses	4,900	400
Investment Securities	1,305,265	1,558,415
Forestland and Timber*	121,805,646	121,225,580
Land and Equipment	1,527,117	2,008,676
Total Assets	125,377,208	125,308,813
Liabilities		
Refundable Deposits	39,700	39,700
Accrued Expenses	50,729	51,497
Deferred Excise Taxes	1,056	0
Unrestricted Net Assets	125,285,723	125,217,616
Total Liabilities and Net Assets	125,377,208	125,308,813
Statement of Activities		
Support and Revenues		
Contributions	7,500	409,500
Timber Sales	991,566	856,085
Investment Return	225,397	0
Other Income	1,503	3,030
Total Support and Revenues	1,225,966	1,268,615
Program Expenses		
Timber and Forestland Management**	1,359,364	1,295,432
Education and Outreach	51,006	77,503
Grants Made	1,775	34,607
Total Program Expenses	1,412,145	1,407,542
Administrative Expenses	153,973	188,610
Investment Return	0	212,796
Provision (Benefit) for Taxes	2,123	(564)
Total Expenses	1,568,241	1,808,384
Change in Unrestricted Net Assets	(342,275)	(539,769)

*-Timber and Forestland is stated at cost, or if donated, at the approximate fair value at the date of donation, less accumulated depletion for timber previously harvested.
**-Includes $752,698 of depletion from harvested timber, a non-cash expense.
The fiscal year of the L-A-D Foundation is July 1 to June 30. The summary financial information shown here has been reviewed by Wilhelm and Wilhelm, LLC of St. Louis, Missouri.

Appendices

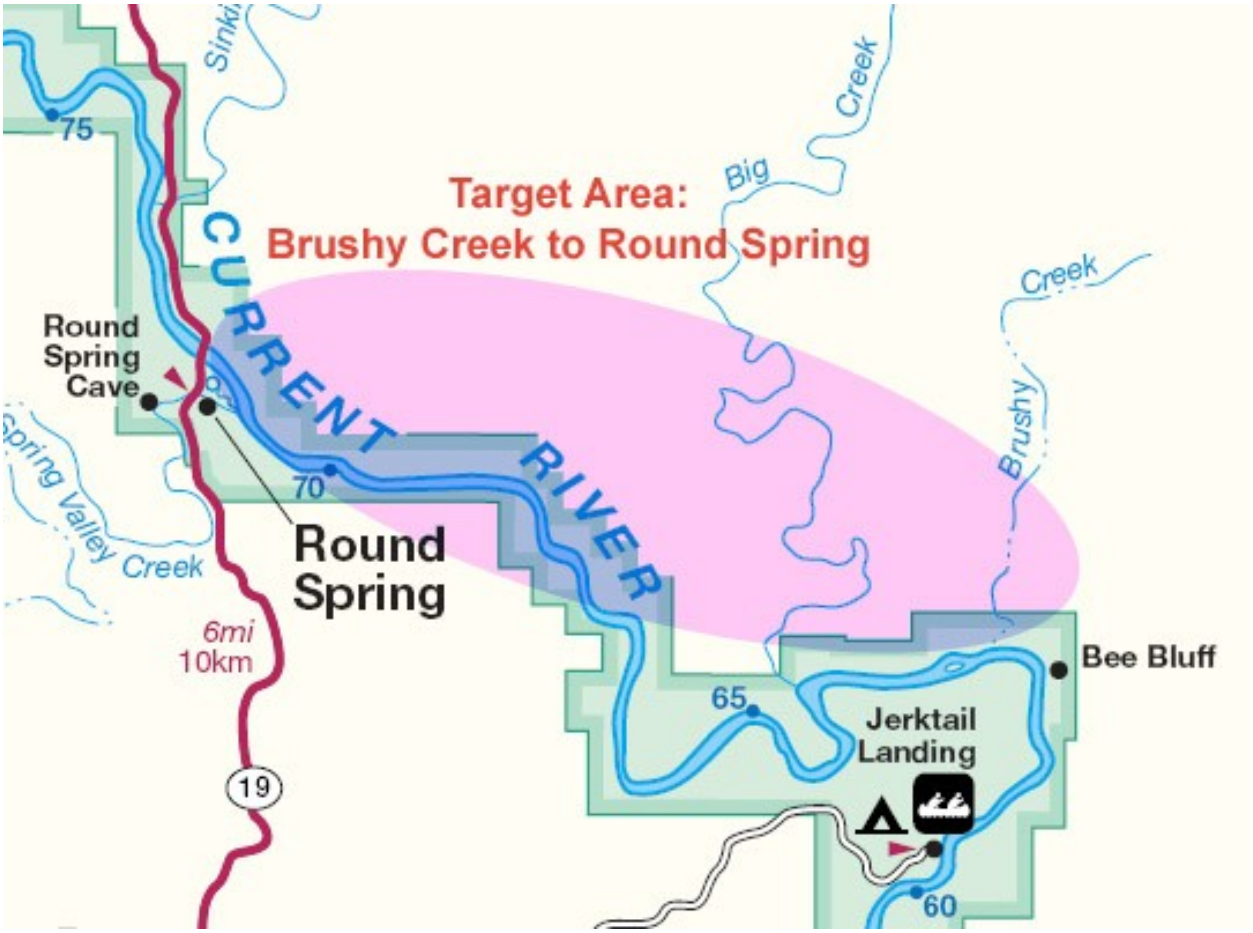
L-A-D Foundation Lands Recognized by Various State or National Programs

Name	County	Recognition, Date, Size
Ball Mill Resurgence	Perry	Missouri Natural Area[1], 1979, 19 acres
Clifty Creek	Maries	Missouri Natural Area, 1971, 230 acres
Current River	Shannon	SAF Natural Area[2], 1955; Missouri Natural Area, 1977, 10 acres; Addition, Missouri Natural Area, 2005, 255 acres; total 265 acres.
Dillard Mill	Crawford	Missouri Historic Site[3], 1977, 130 acres
Dripping Springs	Texas	Missouri Natural Area, 1973, 8 acres
Grand Gulf	Oregon	National Natural Landmark, 1971; Missouri State Park[3], 1984; 159 acres Missouri Natural Area, 1986, 60-acre portion
Hickory Canyons	Ste. Genevieve	Missouri Natural Area, 1973, 420 acres; Addition, Missouri Natural Area, 1979, 530 acres; total 950 acres
Horseshoe Bend	Texas	Missouri Natural Area, 1973, 69 acres
Lily Pond	Reynolds	Missouri Natural Area, 1975, 8 acres
Piney River Narrows	Texas	Missouri Natural Area, 1971, 50 acres
Pioneer	Shannon	SAF Natural Area, 1964; Missouri Natural Area, 1977, 20 acres
Rocky Hollow	Monroe	Missouri Natural Area, 1973; National Register of Historic Places, 1974; 191 acres
Roger Pryor Pioneer Backcountry	Shannon	Lease to Missouri State Parks, 2005, 56,675 acres
Scenic Easements	Shannon, Carter	National Park Service, Ozark National Scenic Riverways, 1970, 951 acres
Triple Sink[4]	Shannon	Missouri Natural Area, 1980, 23 acres; Addition of 19 acres, total of 42 included as part of Sunklands Natural Area in 1999; Acquired by Pioneer Forest LLC in 2006.

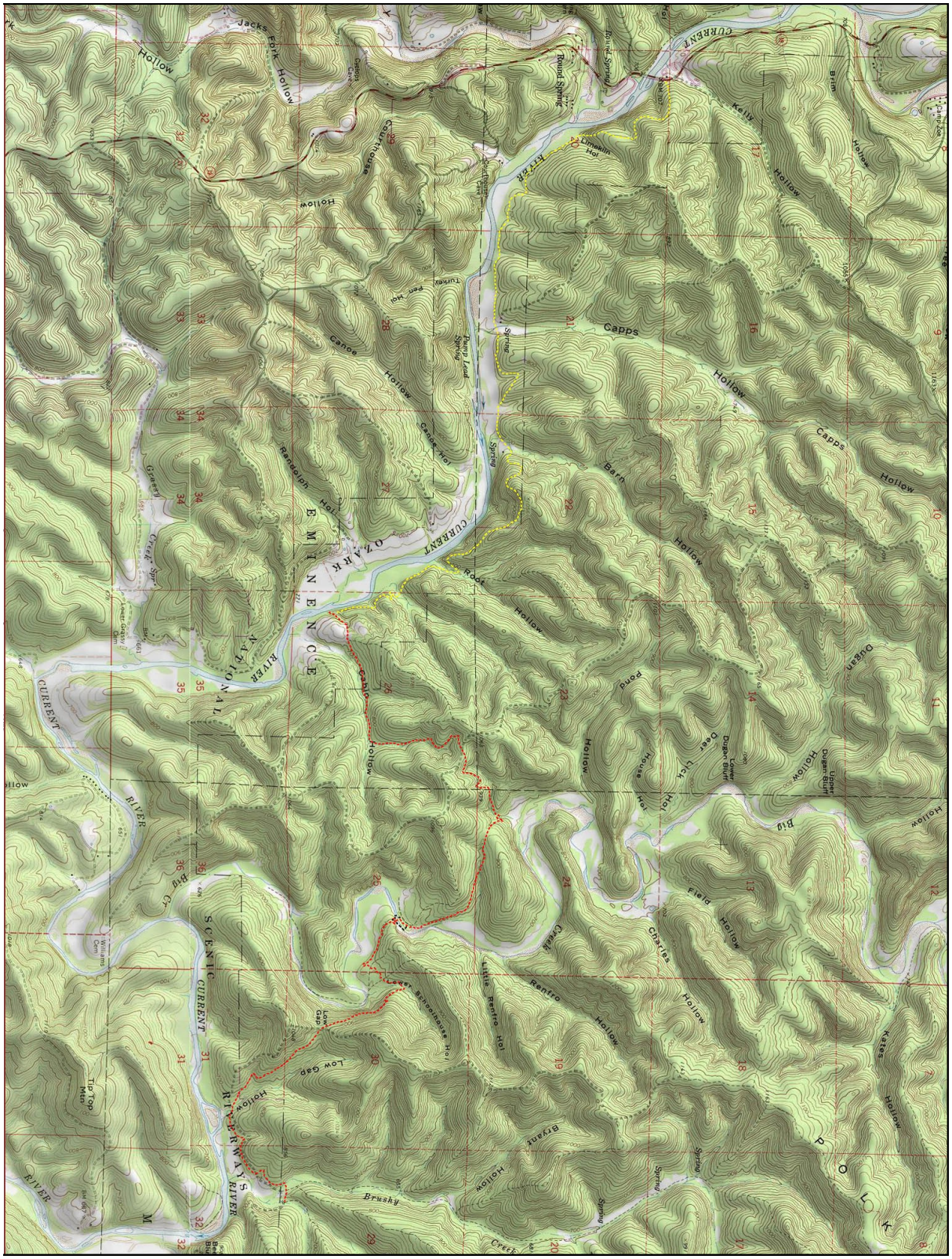
Pioneer Forest LLC Forest Reserves[5]

Bluff School, Medlock Cave	Shannon	Established, 1995; 51 acres
Fishtrap Hollow and Marshy Spring Hollow Fens	Shannon	Established, 1995; 45 acres
Laxton Hollow	Shannon	Established, 1995; 145 acres
Leatherwood Creek	Shannon	Established, 1995; 1003 acres
Old Schoolhouse Hollow Fens	Shannon	Established, 1995; 140 acres
Sinkhole Ponds Complex	Reynolds	Established, 1995; 45 acres
Sutton School Hollow Fens	Shannon	Established, 1995; 75 acres

[1]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.
[2]The Society of American Foresters Committee on Natural Areas was organized in 1947.
[3]State Historic Sites and State Parks are managed by the Division of State Parks, Missouri Department of Natural Resources.
[4]Originally designated as a Missouri Natural Area in 1980 under the ownership of the Frank B. Powell Lumber Company; acquired by the L-A-D Foundation in 2006.
[5]The concept for Forest Reserves was discussed by Pioneer Forest staff in 1994; in 1995, the management plan for each of these areas was defined along with boundaries, and following Leo Drey's agreement and the endorsement of the Foundation Board, the program was adopted.



Target Corridor for Current River Trail



Proposed Route of the Current River Trail, with the western half shown here in yellow and the eastern half shown here in red.

GLOSSARY OF TERMS

Acre – A unit of land area measurement equal to 43,560 square feet.

Advanced regeneration – Seedlings or saplings that develop or are present in the understory.

Age class – An aggregation of trees that are essentially the same age. Age-class is often used synonymously with "size-class." Age intervals of 10 years are commonly considered to be the same age class.

Aquatic habitat – A local environment that is in or near water that provides food, a place to reproduce, and shelter for water-dependent species.

Aquatic invertebrate taxa – Includes a range of organisms such as snails, crustaceans, insect larvae, leeches, and aquatic worms.

Aspect – The cardinal direction that a slope faces (north, south, east, west)

Avifauna – Avian wildlife, birds.

Basal area – The area (in square feet) of the cross section of a tree stem, including the bark, generally at breast height (4.5 feet above the ground). In the aggregate, it is the total cross-sectional area per acre of all trees at breast height.

Biological diversity – The conditions of having a variety of biotic characteristics and traits (e.g., genes, species, and community types), life history stages, structural forms (e.g., stratification, zonation, and the physical structures of plants), biotic patterns (e.g., reproductive activity, food web, social, and interactive), and functions (e.g., nutrient cycling, hydrological cycling, and provision of habitat). Also termed "biodiversity."

Biotic index – A range of values used to observe and compare biotic changes in response to pollution or habitat change.

Board foot – A unit for measuring wood volume. It is commonly used to express the amount of wood in a tree, sawlog, or piece of lumber. A piece of wood one foot wide by one foot long by one inch thick equals one board foot.

Bolt – A short log or a squared timber cut from a log, usually less than 8 feet in length.

Buffer strip – A strip of vegetation that is left unmanaged or is managed to reduce the impact a treatment or action on one area would have on an adjacent area.

Canopy – The more or less continuous cover of branches and foliage formed collectively by the tops, or crowns, of adjacent trees.

Canopy closure – The progressive reduction of space between tree crowns as they spread laterally.

CFI – Continuous Forest Inventory, an inventory repeated on a regular frequency over a long time period to locate and estimate quantities by species, products, size, quality, and other characteristics.

Chrono-sequence – Forest stands covering a range of ages and management-related disturbances.

Clear-cut – A harvest method used in the even-aged silvicultural system. The removal of all merchantable and non-merchantable trees greater than 1.0 inch in diameter in one harvest cut. Pioneer Forest management does not include the use of clear-cutting.

Community – An assemblage of plants, animals, bacteria, and fungi that live in an environment and interact with one another, forming a distinctive living system with its own composition, structure, environmental relations, development and function.

Cord – A unit of gross volume measurement for stacked roundwood based on external dimensions, generally a 4- by 4- by 8-foot stack (128 cubic feet of stacked wood.)

Cull – A tree or log of merchantable size that because of defect has no merchantable value. A cull may be highly valuable as a den tree.

Customary rights – Rights that result from long habitual or customary actions that have, by such repetition and by uninterrupted acquiescence, acquired the force of law within a geographical or sociological unit.

Cutting cycle – The planned interval between partial harvests in an uneven-aged stand.

Dendrochronology – The study of tree rings and tree ring patterns influenced by environmental factors such as climate and fire. Analyzing annual growth increments helps us to understand the age of a tree or a forest canopy, and to compare responses to change between species and within a forest or a region.

Den tree – A living tree with a cavity large enough to shelter wildlife. Also called a cavity tree.

Diameter breast height (d.b.h.) – Diameter of a tree measured on the uphill side of the tree at 4.5 feet (breast height) above ground line.

Disturbance regimes – Any of a variety of events, such as wind, floods, fires, that cause a significant change in the local or regional environment and the associated plants or animals.

Down woody debris – Woody portions of trees that have fallen to and are lying on the ground. Down woody debris includes twigs, branches, logs, stumps, and whole trees that have fallen. Also referred to as either fine or course woody debris.

Ecosystem – A conceptual unit comprised of organisms interacting with each other and their environment, having the major attributes of structure, function, complexity, interaction and interdependency, temporal change, with no inherent definition of spatial dimension.

Endangered species – Any species that is in danger of extinction throughout all or a significant part of its range. Endangered species may be either state or federally listed.

Erosion – The displacement of soil from one place to another by any means, including wind, water, gravity, logging, and road building.

Even-aged management – A system of forest management in which stands are maintained or cut with relatively minor differences in age, usually less than 10% of the rotation.

Even-aged silvicultural system – The application of a combination of actions that results in the creation of stands of trees of essentially the same age that are growing together. Managed even-aged forests are characterized by a distribution of blocks of single-age stands (and therefore, tree size) throughout the forest area.

The difference in age between trees forming the main canopy level of a stand usually does not exceed 20% of the age of the stand at harvest rotation age. Regeneration in a particular stand is obtained during a short period at or near the time that a stand has reached the desired age or size and is harvested. Clear-cut, shelterwood, or seed tree cutting methods produce even-aged stands.

Exotic species – Species that would not occur naturally in the location where they are found.

Federally listed – Animals or plants that have been formally added to the federal lists of endangered or threatened wildlife or plants by the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service. In legal terms, also includes species formally proposed for addition to these lists.

Fluctuating asymmetry (FA) – A measure of developmental stability based on genetic complexity.

Forest – Generally defined as an area with over 60% canopy cover.

Forest structure – The layers of vegetation within a forest. These layers are, in general, seedlings, advanced reproduction, saplings, poles, and overstory. Except for seedlings, each of these layers can be made up of multiple age classes.

Fragipan – Loamy, brittle subsurface soil layer that is low in porosity and organic matter, and is low or moderate in clay, but high in silt and fine sand. A fragipan appears to be cemented and restricts roots.

Geo-reference – Spatial information related to geographic data allowing the data to be displayed along with other related geographic data within a geographic context.

GIS/GPS – Geographic Information System, best described as telling us where a particular oak is within the forest, compared to GPS (Geographic Positioning System), which tells us the particular point (x, y, z) where we are within the forest.

Harvest cycle – The time period between harvest entries when using an uneven-aged management system.

Harvest rotation – The time period between harvests when using an even-aged management system.

HCVF – High Conservation Value Forests – Those forests that possess one or more of the following attributes:

1. forest areas containing globally, regionally, or nationally significant concentrations of biodiversity (e.g., endangered species) and/or large landscape-level forests contained within the management unit, where viable populations of most, if not all, naturally occurring species exist in natural patterns of distribution and abundance;
2. forest areas that are in or contain rare, threatened, or endangered species;
3. forest areas that provide basic services of nature in critical situations (e.g., protection of water catchments and control of soil erosion)

High-grading – Harvesting to extract only the most valuable trees from a forest. No consideration is given to regeneration requirements of tree species or future development of the trees or forest.

High-quality hardwoods – Hardwood trees or stands that will yield high-value timber products, such as face veneer, knot-free lumber, furniture, or specialty product stock and flooring.

Ingrowth – Trees that during a specified period have grown past an arbitrary lower limit, primarily of diameter

or height. Ingrowth is usually expressed as basal area or volume per unit area.

Indicator species – A species whose presence in a certain location or situation at a given population level indicates a particular environmental condition. Population changes are believed to indicate effects of management activities on a number of other species or on water quality.

Karst (topography) – Terrain with distinctive characteristics of relief and drainage arising primarily from a higher degree of rock solubility than is found elsewhere. Some of these characteristics are springs, losing streams, underground drainage and water reservoirs, caves, natural bridges, and sinkholes.

Landscape – A physiographic unit that is capable of sustaining several populations of a species; a mosaic of landforms and plant communities irrespective of ownership or other artificial boundaries.

Layering – A forest regeneration technique in which portions of a plant, such as a limb, can be caused to sprout roots and stems.

LEED – Leadership in Energy and Environmental Design; includes the Green Building Rating System.

Legacy tree (or forest) – Preserves certain qualities (such as old-growth trees or forests, wildlife habitat, species, community, etc.) that may be lacking on a landscape scale.

Log landing – A place where logs are taken (skidded) to be loaded on trucks for transport to the mill.

Losing stream – A flowing stream that gradually gets smaller or disappears due to the loss of some or all of the flowage into below-ground channels or caverns.

Mature tree – A tree in which growth has reached the culmination of mean annual increment (economic maturity) and/or one in which growth equals loss of biomass, beyond which decline and mortality will eventually occur (biological maturity).

MBF – Thousand board feet

MMBF – Million board feet.

Native species – Any species of flora or fauna that naturally occurs in a particular area, and that was not introduced by humans.

Natural forest – A forested area in which many of the principal characteristics of the native ecosystems are present.

Natural regeneration – An age class created by natural seeding, sprouting, suckering, or layering.

Neotropical migrants – Bird species that breed in the United States during summer and spend winter in Mexico, Central America, South America, and the Caribbean Basin.

Non-timber forest products – All forest products except timber; other materials obtained from trees, such as resin, bark, and leaves, as well as other non-tree plant or animal products found in a forest.

Old-growth forest – Ecosystems distinguished by old trees and related structural attributes. Old-growth encompasses the latter stages of stand development. These latter stages typically differ from earlier successional

stages in a variety of ways that may include tree size; accumulations of large, dead woody materials, especially on the forest floor; number of canopy layers; species composition; and ecosystem functions.

Old-growth stand – A stand of mature trees that is unroaded or lightly roaded, with little evidence of previous logging, usually ranging in size from 15 to 500 or more acres, and of sufficient size and configuration to maintain specific ecological functions.

Plantation – A forested area that lacks most of the principal characteristics of native ecosystems because of human activities, such as planting, sowing, and intensive crop-like management and harvests.

Progeny – offspring from a parent, in this case, the offspring of tree species within the timber stand.

Regeneration – Seedlings and saplings existing in a stand. This is the process by which a forest is renewed, either artificially by direct seeding or planting, or naturally by self-sown seeds and sprouts.

Resurgence – A sinkhole that acts in the traditional manner of collecting and moving surface water directly to underground reservoirs and then, during especially heavy rainfall, reverses this flow of water to act like a spring.

Riparian area or zone – An area along the bank of a river, stream, lake, or pond identified by the presence of vegetation that requires free or unbound water or is more moist than normally found in the area. The zone may be a narrow strip of vegetation that borders a creek, river, or other body of water. Riparian zones may occupy only a small percentage of a watershed but are extremely important components of the general landscape.

Root-sprung – A condition of storm-damaged trees in which high winds bend a tree to the point where roots are partially pulled from the ground but the tree is not blown down.

Savanna landscape – A landscape characterized by widely spaced trees with an understory of native grasses and shrubs. Savannas are suitable for wildlife species not generally found in closed-canopy landscapes.

Scale – A measure of volume in a tree based on the diameter and height of the tree.

Silviculture – The art and science of producing and tending a forest by manipulating its establishment, composition, and growth to best fulfill the objectives of the owner, which may or may not include the production of timber.

Single-tree selection – A harvest method expressed by the selection of individual trees to be removed from a stand of trees.

Skid trail – A road or trail over which equipment or horses drag logs from the stump to a road or log landing.

Snag – A standing dead tree from which leaves and most of the branches have fallen. A snag may be newly dead and appear to be a leafless tree or may be little more than a tall stump from which all of the limbs and bark have fallen. Snags are used by a variety of wildlife species.

Streams – A channel with a defined bed and a bank that carries enough water flow at some time during the year to flush out leaves. (1) Ephemeral streams are streams that flow less than 10% of the time, only in direct response to rainfall, with a channel that may be scoured or unscoured and is always above the water table. (2) Intermittent streams are streams that flow seasonally (10% - 90% of the time) in response to a fluctuating water table, with a scoured channel that is at least three feet wide. (3) Perennial streams are streams that flow year-round (more than 90% of the time) with a scoured channel that is always below the water line.

Stumpage – The value of standing timber or uncut merchantable timber.

Suckering – Sprouts that grow along the trunk of a tree, usually after a drastic change in growing conditions, such as a heavy harvest, allowing a sudden increase of light to reach the trunk.

Sustainable forest management – The practice of meeting forest resource needs and values of the present without compromising the forest's value for future generations.

Threatened species – Any species that is likely to become endangered within the foreseeable future and that has been designated in the Federal Register or is State Listed.

Timber stand improvement (TSI) – A thinning made in timber stands to improve the quality, composition, structure, condition, health, and growth of the remaining trees.

Topographic relief – The three-dimensional quality of the surface of land, more specifically, depicting the differences between the lowest and highest elevations within an area or region (the most-used example would be a topographic map showing contour intervals).

Topographic roughness – An index value obtained from the measure of a larger region divided by the measure of many small measuring surfaces.

Travertine – A mineral consisting of a massive layered calcium carbonate formed by deposition from spring waters or especially from hot springs.

Tufa – A natural, calcareous deposit associated with springs, lakes, and groundwater.

Uneven-aged silvicultural system – The application of a combination of actions that result in the creation of stands in which trees are in at least three age classes. Managed uneven-aged forests are characterized by a distribution of age classes and tree sizes ranging from regeneration to mature trees on each acre throughout the forested area. Regeneration in a particular stand is obtained throughout the harvest cycle and following a harvest and, in oak/hickory stands, is retained until a short time after complete canopy closure. Single-tree selection or small-group selection tree harvest methods produce uneven-aged stands.

Vegetative architecture – Stratified vegetation levels consisting of various canopy layers, understory layers, and groundcover.

Veneer – A thin slice of wood removed from a log. The thin slice is laminated on to a lower quality or more stable base often, but not necessarily, of the same species.

Veneer tree – A large (usually more than 18 inches in diameter), knot-free, high-quality tree from which veneer logs are obtained.

Volume – The amount of wood in a tree, stand of trees, or log expressed in some unit of measure, such as board feet, cubic feet, etc.

Watershed – An area of land with a single drainage network. A watershed may be very large, such as the Mississippi River watershed, or smaller, such as the Blair Creek watershed. A watershed may or may not include a perennial stream. Holmes Hollow is an example of a watershed without a perennial stream.

Wetlands – Those areas that are inundated by surface or ground water often enough to support plants and other aquatic life that require saturated or seasonally saturated soils for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas, such as sloughs, potholes, wet meadows, fens, river overflows, mud flats, and natural ponds.

Woody debris – All woody material, from whatever source, that is dead and lying on the forest floor.

SEPTEMBER 2008. Between 1996 and 2006 the staff of Pioneer Forest prepared an *Annual Report to the Foundation* for the Board of Directors of the L-A-D Foundation. Beginning in 2007, this report was expanded to become the *Annual Report of the L-A-D Foundation*.

Other publications and information about the Foundation are available from the L-A-D Foundation, 705 Olive Street, Suite 724, St. Louis, Missouri 63101 or at www.ladfoundation.org. Additional information about Pioneer Forest is available from P.O. Box 497, Salem, Missouri 65560.