



# the Forest Steward

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“**G**ood forestry is like Jiu-Jitsu. Instead of fighting with nature you need to work with nature. If you understand which way the system wants to go – then you can work with natural systems. And every time you fail you have the opportunity to re-think your approach.”

– Fred White



*Forest Stewards*  
**Guild**  
*putting the forest first*

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## Dear Forest Stewards Guild Members and Supporters,



Whether you are a natural resource professional, a landowner, a student, or just an admirer of forests, it is hard to miss the changes in the forest that accompany the arrival of spring in the temperate and northern forest regions. The snows have hardly melted before the first wildflowers emerge, tree buds swell, and migratory birds begin to pass through. For those of us willing to admit it, spring also poses yet another chance to learn the bird songs... all over again!

These seasonal changes are a clear reminder of how dynamic and fluid forest ecosystems are. More subtle, but equally important changes happen in our forests across longer timelines, involving shifts in species dominance, forest structure, and transitions in wildlife habitat. The great conservationist, Aldo Leopold was a keen observer of such changes in the forest and the natural world as a whole. He also understood that true stewardship requires that we, as “intelligent tinkers,” pay close attention to both the patterns and movements in the natural systems we seek to manage. One of the Forest Stewards Guild principles speaks to this need...

*Human knowledge of forest ecosystems is limited. Responsible management that sustains the forest requires a humble approach and continuous learning.*

The Guild was formed 20 years ago by individuals who recognized the critical need for an organization that could support and unite professionals, students, and the public around Leopold’s notion of “stewardship” in our forests. Guild members understand that forests and landscapes are never static, and that as the stewards of one of society’s most important resources, we must guard against management approaches which ignore the dynamics of these systems.

Reading about Guild members like Fred and Bruce White of North Carolina, or the work of our long-time members at the Pioneer Forest in Missouri, confirms for me both why the Guild is so important and why I am a proud member and supporter of the organization.

You have likely noticed a new name for this newsletter – *The Forest Steward*. We think it’s fitting that our newly launched newsletter carries the name “Steward” in the title. If you are a Guild member, stewardship is not just what you do, but who you are. For all of you (myself included) who have a stack of our former *Forest Wisdom* newsletters on your shelf – rest assured that publication has not been retired. We’ll be producing a redesigned Forest Wisdom later this year, using a format that enables a deeper exploration of themes important to all of us.

If you are already a Guild member – thank you for all you do. If you are a prospective member, I invite you to join our community of stewards. And I hope to see all of you in July for our much anticipated 2016 National Meeting in Duluth, Minnesota.

Regards,

Rick Morrill  
Board Chair



*The Heart of the Pioneer Forest along the Current River*

## In the Heart of Roughness – Pioneer Forest, Missouri

by Fred Clark

Clint Trammel and Terry Cunningham spent almost all of their 40-year careers working for one person on one forest. The person was the legendary Midwestern conservationist Leo Drey and the property was the largest private forest in Missouri, and one of the finest oak forests in the world.

As members of the Forest Stewards Guild, Clint and Terry inspired Guild members from all over the United States with the remarkable story of the Pioneer Forest in the southern Ozarks of Missouri. Until recently, however, not many Guild members from outside the area had a chance to go there.

In late April, a small group of our members joined the Missouri Coalition for the Environment and staff from the L-A-D. Foundation for a gathering in the Pioneer Forest’s Roger Pryor Backcountry – often referred to as the “Heart of Roughness” in the Ozarks.

The group shared an evening on the porch of the “Drey Land” Camp near the Current River discussing conservation, forest history, wildlife, and the unique qualities of white oak that make it suitable for cooperage.

If you enjoy bourbon, scotch, or cognac, then you’ve probably tasted white oak from the Ozarks. Leo Drey and his successors at Pioneer Forest deserve a large share of the credit for keeping a fine American tradition alive.

The Pioneer forest has a long and rich history of conservative management. A tour of managed oak forests provided plenty of evidence for the long-disputed idea that over 70 years of selective

timber management in oaks could result in multi-aged stands – effectively retaining oak on the landscape for the long-term.

Terry Cunningham stated on our tour that, “It has been extremely rewarding to spend over 40 years practicing forestry on Pioneer Forest. It is also very rewarding to know that it will continue to be managed as a result of Leo Drey’s vision and his gift to the L-A-D Foundation.”

Clint and Terry have since retired from Pioneer, but their successors – Forest Manager Jason Green and Chief Forester Brandon Kuhn – are continuing as the third generation of managers in the history of a remarkable forest.

Leo Drey purchased his first property in the Missouri Ozarks in 1951. By 1954, he owned 123,000 acres, most of it in Shannon, Reynolds, and Carter Counties, that he renamed Pioneer Forest. It was the beginning of one of the region’s most remarkable stories of private forest management and conservation.

Drey was trained in business, but forest conservation became his passion. He was a life-long student, and was committed to protecting forests for all their values and managing land with a fundamentally conservative approach, using the best possible practices.

As Dr. Susan Flader, the forest historian and longtime friend and colleague of Leo’s put it, “Leo Drey invested in timberland with his eyes open, but also with a large measure of faith”.

In addition to Missouri’s largest ever investment in forestland, Drey  
*Continued on page 4*





From left: Neil Humke (L-A-D Foundation), Greg Iffrig, L-A-D Foundation, Dr. Susan Flader (L-A-D Foundation Board Member), David Lobbig (Missouri Coalition for the Environment), Jason Green (L-A-D Foundation), and Al Sample (Forest Stewards Guild Board) discussing conservation at the Drey Land Camp.

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also invested in people. He retained as his manager, head forester Ed Woods of Pioneer Cooperage, the company from which Drey made his largest single acquisition in 1954, with the instruction that he continue the conservative tradition of selective harvesting that the firm had employed prior to being purchased by a New York conglomerate in 1946.

In the 1970's, Trammel and Cunningham, then both young foresters with degrees fresh from University of Missouri, joined the Pioneer Staff and together led the forest until their own recent retirements.

During that time, Pioneer developed a style of selective oak silviculture that most foresters (and conventional wisdom) said simply could not be done. In fact, while there are factors that make Pioneer forest unique in the world of eastern oak forests, thanks to long-standing Continuous Forest Inventory re-measured every five years, and studies detailing the ecological, economic, and silvicultural results of multiple selective harvest entries – the validity of Pioneer's management has now been broadly acknowledged.

In addition to his commitment to working forests, Leo Drey created the L-A-D Foundation in 1962 to hold and protect properties with significant natural or cultural value. Today, in addition to Pioneer Forest, these properties include a state park, state historic site, and seven Dedicated State Natural Areas leased to the State of Missouri, and nearly 1,000 acres of river corridor land within the National Park Service Ozark National Scenic Riverway.

Drey's 2004 gift of 143,000 acres of forest and natural areas to the L-A-D Foundation became what is to this day the largest gift of land in Missouri history. Thanks to that gift both the legacy and the future of Pioneer Forest today remains as strong as ever.



In the Roger Pryor Backcountry. Standing, from left: Brandon Kuhn, Jason Green, Greg Iffrig, Neil Humke, Terry Cunningham, Guy Dunkle, and Al Sample. Kneeling: John Fenderson and Fred Clark.

## Forest Wisdom

### Upcoming Issue

With this first issue of *The Forest Steward*, we are rolling out a long-awaited new vision for our print communications. We will produce *The Forest Steward* in spring and fall as a vehicle for short stories, news about our members and current programs, and upcoming events. The Guild's previous print newsletter, *Forest Wisdom*, has not been retired, but will return as an annual publication in a new form and a new look.



Each year *Forest Wisdom* will provide us with the space to explore one or more themes in depth and breadth.

Our first re-issue of *Forest Wisdom*, coming later this year, will explore the ethical dimensions of forest stewardship. What values and standards guide right and wrong conduct with regard to our presence in, and interactions with, the forest and forest owners? How do we, and how have we, arrived at the ethical understandings that guide our work?

Essays, articles, and other writings will consider the influence of traditional thought leaders such as Gifford Pinchot and Aldo Leopold, as well as, influences that may be less traditional but are no less powerful all to give us a richer understanding of the ethical compass with which we enter the forest and the calibrations, large and small, that we make while inside it.

We're looking forward to hearing from you, and about you, as we bring the story of the Guild to a growing, vibrant community of practitioners.

### In Woods: Spring

This morning I heard:  
Morels, waiting for the pad  
Of our feet to pass;  
Fine-stemmed Maidenhair,  
Brandishing her tentacles  
At the nettle's prick;  
Patient Putty Root,  
Steeping Eve's last-fallen leaf  
To stoke Adam's bulb.

Orchis, boasting a  
Sturdy emerald setting  
But hiding his jewel;  
May Apple, blushing,  
While under its canopy  
We dance the Maypole.  
Oh, Spring! Oh, my Love!  
We've not heard the half of it;  
We've barely even begun  
To make sense of it All.

— Michael Whaley

## Alpha and Omega

### Profile of Guild Members Fred and Bruce White

The Founding Members of the Forest Stewards Guild each brought unique talents and accomplishments to a young organization. They have collectively influenced the work of many practitioners and helped move ecological forestry from the fringe to the center of forestry concepts and developed the ethos around ecological forestry. Among that group, one of our founding members Fred White of Chapel Hill, NC stands out for probably having taught and inspired more foresters and forest lovers in a long career than just about anyone. One of Fred's youngest students was his own son Bruce, who is actively carrying on the family legacy of progressive forestry in the southeastern U.S.

Fred was raised in Memphis, Tennessee in a family of doctors, and from an early age, there was an expectation that he would go into medicine. But after spending mornings in chemistry labs at the University of the South in Suwanee, Tennessee, and afternoons in the oak forests at Suwanee's 13,000 acre Domain Forest, he pulled out of his pre-med program and transferred into forestry. He has never looked back.

Fred's first job out of college was as a timber marker for Chicago Mill and Lumber in Greenville, Mississippi. Instead of driving a pickup truck, he had the unique experience of taking a company launch up or down the river each day to mark timber. As he came to appreciate the forests along the river systems in Mississippi – he realized that in this particular landscape single tree selection was actually harming the forest more than helping – “pecking the forest to death” as he put it.

Following a two-year stint with the Army during the Korean War, he returned home to Memphis and attended graduate school at Duke University. Around 1958 he took what many would consider a dream job as Director of the Duke Forest in Durham, NC. In addition to overseeing forest management, he taught students in silviculture, mensuration, and almost every other subject there was a need to cover. In 1982, Fred made his first of three “retirements” when he left Duke and went to work for the North Carolina Forest Service as Assistant State Forester for Management. He introduced the young staff to the challenges and rewards of hardwood forestry and led research and development efforts.

In 1998, the Duke Forestry graduates George Detrow and Chris Zinkhan started the Forestland Group, LLC, a TIMO with a niche in hardwood timberland investment. They then lured Fred out of his second retirement by hiring him as their Senior Forester. As Fred put it, in his career, he “saved the very best till last”. Chris and George gave Fred the time and space to design and apply innovative

and conservative silvicultural practices on their growing land base. At the time of his third and final retirement Fred was overseeing management plans on 3,000,000 acres from Canada to Belize.

Fred White has managed to distill some simple lessons from a lifetime of complex learning. As he put it in our conversation, “Good forestry is like Jiu-Jitsu. Instead of fighting with nature you need to work with nature. If you understand which way the system wants to go – then you can work with natural systems. And every time you fail you have the opportunity to re-think your approach.”

The apples (or acorns) in the White family did not fall far from the tree. Bruce White picked up a love of forests from an early age. When Bruce was 11, Fred took him to Utah along with two vans full of students for summer research.

The students quickly found that Bruce was the perfect size to wriggle into the tight ground level branches of ponderosa pine on the Dixie National Forest, and he could hold the calipers at exactly 4.5” by keeping it level with his nose. Bruce proudly crawled into pine after pine for days at a time.

Fred did not encourage Bruce to go into forestry, but that trip to Utah sealed his enthusiasm. As Bruce recounts it, seeing how much fun those students were having every day, and being asked to play poker around a campfire, was a powerful motivator.

Bruce graduated from North Carolina State University in 1993. In his first field job with Willamette Industries he worked in pine and hardwoods as both a procurement forester and managing company lands. After a few years of learning his job, he had much more freedom than most companies would have offered, especially the opportunity to experiment with natural stand management.

In 2004, Bruce hung out his own shingle as an independent forester working from Chester, SC. In 2007, he moved to Raleigh – drawn by both a job with family friends at Gelbert, Fullbright, and Randolph Company, and a romance he was sparking with his future wife Michi Vojta, a classmate and fellow forester. Bruce and Michi married in late 2007.

While they never formally worked together, Bruce and Fred remain strong influences for each other. Any time they could, they'd spend time together in the field. There were days when Fred felt that Bruce walked him into the ground, but both of them have benefitted immensely and have been shaped by a shared lifetime of knowledge and a unique father and son experience. Any soreness Fred might have felt at the end of a day with Bruce was more than made up for by the good fortune of sharing so many good years outdoors together.



Top: From Left, Dan White, Fred White, Ludie White, Bess White, and Bruce White. Middle: Bruce White and a big cypress in Dillon County, South Carolina. Lower: Fred and Bruce White on Father's Day 2012.





## ■ Guild Team Studies Balance of Protection and Productivity in Wisconsin

by Zander Evans

The Wisconsin state flag, adopted at statehood, features a sailor and a miner. If those emblems were to reflect the state's leading economic activities a new flag today might instead show a cheesemaker and a logger.

Wisconsin has long been a leader in sustainable forestry – beginning many years before the word came into use. In 1924, far-sighted lawmakers authorized a forestry mill-tax “...for the purpose of acquiring, preserving, and developing the forests of the state.” Forestry mill-tax revenues have supported one of the strongest state level forestry programs in the nation that provided support for state and county forest land, and a high level of technical and financial support for private forests.

In 2008, the governor, the Wisconsin Council on Forestry, and forest industry leaders led efforts to secure third party certification for state and county forest lands, and the over 41,000 enrollees in the state's Managed Forest Law program (MFL). Today Wisconsin has third-party certificates on more than 7.5 million acres of state forests, county forests, and private lands in the Managed Forest Law, which has itself become the largest FSC group certification in the world.

Since 2008, however, timber professionals, mills, and secondary producers have all felt the impact of an economic recession and multiple paper mill closings, and the temperature in the room around forest certification has gotten distinctly cooler. For many in the forest products sector, tougher economic conditions have given rise to sentiment that both regulations and third-party certification requirements were affecting the competitiveness of forestry operations and threatening wood supply stability.

To help address these questions with data, in 2013, Wisconsin legislators commissioned state funds to sponsor a series of studies

– collectively called the Wisconsin Forest Practices Study. Based on the legislative directive in Wisconsin Statute 26.105(1), the Wisconsin Department of Natural Resources awarded a grant to conduct the Wisconsin Forest Practices Study (WFPS) to the Great Lakes Timber Professionals Association (GLTPA) and Wisconsin County Forests Association (WCFA). The studies are being guided by the Wisconsin Council on Forestry and contracted through the National Council and Air and Stream Improvement (NCASI). For more information see [www.wisconsinforestry.org](http://www.wisconsinforestry.org).

In 2014, the Forest Stewards Guild was awarded the contract for our study titled, *Economic and Ecological Effects of Forest Practices and Harvesting Constraints on Wisconsin's Forest Resources and Economy*. Foresters and timber professionals operate routinely within constraints such as Best Management Practices for water quality, seasonal limitations on harvesting to protect soils or reduce risk of diseases such as oak wilt, and mandatory restrictions to protect threatened and endangered species. Fundamentally, the legislature and industry leaders were interested in quantifying the collective economic impact of those and other constraints that affect timber harvesting and other forestry operations.

The Guild's Research Director, Zander Evans, led the study, along with our study partners Applied Ecological Services of Brodhead, Wisconsin, and the Bureau of Business and Economic Research at the University of Minnesota-Duluth. Throughout 2015, the team reviewed scientific literature, mapped areas affected by constraints, analyzed harvest case studies, conducted listening sessions and surveys of foresters and timber professionals, modeled the economic effects, and assessed the ecological impacts of harvest constraints.

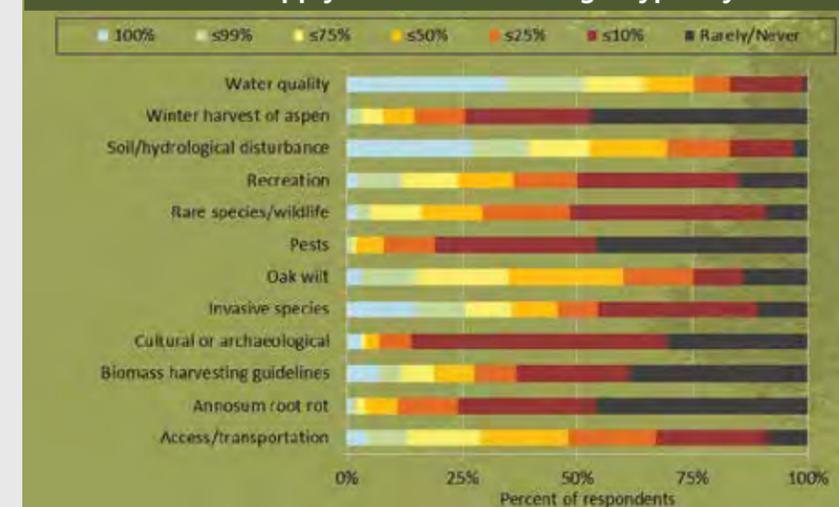
Any business person knows it's important to know your costs. However any calculation of costs can be meaningless without also knowing the value received. In natural resources, the cost of compliance with forest management guidelines and restrictions (collectively called “constraints”) is almost always more easily measured than the value of resources such as clean air, clean water and wildlife, that are protected by applying the constraints.

In a classic example of internalized benefits and externalized costs, the impacts of destructive forest practices accrue to a different set of stakeholders – including society as a whole – than do the short-term economic benefits received from those activities. There is no doubt that regulations, voluntary guidelines, and best practices, make forestry operations more expensive for operators, but they help mitigate external costs, protecting both long-term forest productivity and non-timber resources. In that way, just as the cost of bad practices are felt as externalities, the cost of applying best practices are often carried most heavily by independent loggers and timber professionals, who often do not benefit directly from their efforts.

What is most clear, however, from the Guild's report on harvest constraints and other similar studies is that there is broad support for best practices – even among most of those who shoulder the cost of applying them. And when taken together, non-regulatory forces, changing seasonal conditions, land development patterns, the judgement of professionals, and the preferences and priorities of forest owners are the most significant factors affecting most forestry operations.

Best practices that protect water, wildlife, and forest productivity may actually be one of our best returns on investment in forestry – protecting both the future value of the resource, as well as, public support for active forestry activities on our forested landscapes.

### Percent of timber harvests to which foresters apply a constraint during a typical year



### Some key findings from the report

While the implementation of forest management constraints causes immediate economic impact, the forest resources these constraints are designed to protect – including clean air, clean water, wildlife, biodiversity, and recreational values, and future forest productivity – also have significant present and future value. Those benefits are less tangible and not easily measured, but they are no less important and are widely valued by society and taxpayers who support forestry programs.

Most foresters and timber professionals are supportive of forest management constraints that protect forest resources. In our survey, over 70 percent of timber professionals indicated they believed protecting forest resources and values was either extremely or moderately important.

The cost of forest management constraints, however, is not evenly distributed across organizations, actors, or geography. Timber professionals are required to adjust their practices substantially to implement or comply with harvest constraints, but they are often unable to adjust their pricing to account for increasing costs or reduced efficiency of production.

In most cases, foresters and timber professionals apply constraints based on professional judgment. In conversations, several practitioners noted that they would adhere to most constraints regardless of whether they were required to do so by law or policy because they are ethically obliged to apply the best science to their work and to act to protect the long-term health of the forest.

We did not find significant evidence, either in our literature review or in our surveys and interviews with practitioners, that forest practices restrictions are ineffective

or inappropriate for their intended purpose of protecting forest health, productivity, and non-timber values.

Because constraints are applied to a large degree as a result of professional judgement of practitioners and decisions made by landowners, any effort to change harvesting constraints will require a combination of strategies including sound science and research, education and “buy-in” of landowners and practitioners, and supportive policies, in order to be successful.

The full report can be found on the Guild's website at [www.forestguild.org/WFPS](http://www.forestguild.org/WFPS)



**T**he Forest Stewards Guild 2016 National Meeting is happening in Duluth, Minnesota and surrounding field sites **July 13-15**. This is a gathering you won't want to miss!



**Forest Stewards Guild  
2016 National Meeting  
REGISTRATION IS NOW OPEN!**

July 13-15, 2016 in  
Duluth, Minnesota

[www.forestguild.org/NationalMtg](http://www.forestguild.org/NationalMtg)

**Wednesday, July 13** A full suite of presentations will explore the ties between restoration goals and the challenges of adaptive management in a changing climate. Keynote speaker **Dr. Curt Meine**, a renowned Aldo Leopold scholar, will share insights on restoration and the land ethic in our world today. **Dr. Nancy Langston** of Michigan Technological University will share her work studying the history and future of public lands.

**Thursday, July 14** Field trips in the Chippewa National Forest, State and County lands in Aitkin County, St. Croix State State Park, Minnesota, and moose habitat restoration on Nature Conservancy lands north of Duluth.

**Friday, July 15** Staff from the Northern Institute of Applied Climate Science will lead participants through a synthesis and field exercise day at the Cloquet Forestry Center.

**Students!** Students and groups can register at a special discounted rate.

**Sponsors!** Would you like to be recognized for supporting forest stewardship across the landscape? Please check our meeting website for sponsorship opportunities.

Contact Amanda Mahaffey ([amanda@forestguild.org](mailto:amanda@forestguild.org), 207-432-3701) with questions about the meeting program.

Thank you, and we look forward to seeing you this summer in Duluth!

