Living on the Edge

PARTNERS FOR CONSERVATION

MAKING A LIVING WHERE THE OZARKS MEET THE PRAIRIES BY APPLYING ALDO LEOPOLD'S CONSERVATION LAND ETHIC

Private Lands Partners Day 2018 – Springfield, Missouri

Credit: Chris Woodson, USFWS

Private Lands Partners Day 2018

In early October 2018, nearly **200 individuals from 32 different states** met in Springfield, Missouri to learn about conservation efforts on private lands. In its 11th year, Private Lands Partners Day (PLPD) has become the premier gathering of working lands conservation interests across the country. The annual event is hosted by Partners for Conservation and the U.S. Fish and Wildlife Service Partners for Fish and Wildlife Program and is intended to bring together private landowners implementing conservation practices on their operations and the resource professionals that partner with them in their efforts. This year, the event was held at Bass Pro Shops® at the stunning John A. and Genny Morris Conservation Education Center adjoining the new Wonders of Wildlife National Museum and Aquarium. Bass Pro Shops® also provided generous financial support for the meeting as did a number of public and private entities and non-governmental organizations. It was the first time that PLPD was held in the Midwest, even though the Partners for Fish and Wildlife Program was started in the Midwest more than 30 years ago.

A highlight of every Private Lands Partners Day is the day-long field tour of operations around the host location – and the PLPD Missouri did not disappoint. Throughout the day, four buses traversed the southwest portion of the state. Participants toured agricultural operations to learn about prairie restoration, Audubon Certified grass-fed beef, quail and declining grassland bird habitat restoration, soil health, water quality and quantity, and much more. That evening, local farmers and ranchers, working with the Missouri Department of Health and Senior Services, hosted a "Taste of Missouri Fall" farm-to-table dinner at the Pavilion Farmers Market of the Ozarks in Springfield. Day two of Private Lands Partners Day featured a series of panels that outlined Missouri, regional, and national perspectives on building conservation partnerships and ensuring future generations of private land stewards.

Credit: Jodi Stemler

Overall, Private Lands Partners Day shares the value of partnerships that address agency and organizational missions while helping landowners achieve land health goals on their own property by applying, either consciously or unconsciously, a land ethic. It also helps by building trusting relationships and sharing an awareness of what happens annually on the land whether related to hunting and fishing, monarch butterfly migration, phenology, wildlife responses to changing seasons, or the health of the soil and the quality of the water in our streams. The meeting provides a venue for partners to gather, socialize, and share their knowledge to carry forward this land ethic for the future of conservation and agricultural operations.

Private Lands Partners Day 2018 Attendance by the Numbers:

- Non-profit, industry, or other - 22%
- State or federal agency - 37%
- Landowners or managers representing 26 different states - 41%

Missouri's History of Conservation

Missouri has a long history of engaging with private landowners to implement conservation measures on private working lands. Missourians are proud of the conservation legacy passed by the people in 1936 to have a non-partisan commission direct an agency charged to protect forests, fish, and wildlife through science and adaptive management – what is now the Missouri Department of Conservation. This model of conservation has provided Missourians with outdoor experiences, education, and an appreciation of Missouri's natural resources, so much so that Missourians support self-imposed taxes to maintain and improve the state's conservation heritage.

Some of Missouri's land conservation legacy is owed to Aldo Leopold, who has roots in Missouri. In the mid-1920s, he hunted bobwhite quail here and his family traveled to the Ozarks frequently to visit his cabin on the Current River (his "southern shack"). He established himself as one of the nation's leading conservationists and in the 1930s he helped state conservation leaders shape a conservation strategy that remains the core of Missouri's ethos today. He recognized the only way Missouri was to have any influence on the state of conservation was to work with private landowners. He was concerned about quail, turkey, and greater prairie chickens and the biological education people needed to have an understanding of the world around them, to "read the land" and comprehend "how Missouri was put together". Leopold's connection and appreciation of Missouri was part of the legacy he passed down, with his children studying, living, and working on conservation issues in Missouri.

Missouri provides recreational opportunities that support a multi-million dollar tourist industry. This part of the Ozarks also supports a healthy cattle industry, helping to make Missouri the 2nd largest beef producer and the 15th largest milk producer in the nation.

Credit: Jodi Stemler

Welcome from Missouri Department of Conservation and Department of Natural Resources

To open Private Lands Partners Day, participants were welcomed by the current director of the MDC, Sara Parker Pauley. During her remarks, she shared insight provided by MDC's then deputy director, Allen Brohn, at the agency's 50th Anniversary in 1986: "The quality of management of private lands and waters, perhaps more than any other single factor will determine the future of all wildlife." She called on the Private Lands Partners Day participants to bring their passion for agriculture and the land, and experiences in implementing Leopold's land ethic to help promote the conservation of our natural resources on working lands.

Missouri's forestry, fish, and wildlife conservation efforts have received consistent funding since the mid-1970's by dedicating 1/8th of 1 percent sales tax for this purpose. This conservation sales tax supports the MDC's efforts for conservation, including a division with 74 employees devoted to private land programs along with staff in a number of other divisions that also support private land conservation.

Kurt Boeckman, Agriculture Liaison for the Missouri Department of Natural Resources, then described the efforts of his agency using the Missouri Parks, Soils, and Water sales tax (1/10th of 1 percent, and separate funding from the conservation sales tax). Those funds are split equally between state parks and soil and water conservation programs – in 2017, more than $40 million of tax funds went toward on-the-ground conservation programs. Just in the last 10 years, this funding has helped support the adoption of livestock exclusion from riparian areas on almost 10,000 acres and added more than 800,000 acres of cover crops in Missouri during winter of 2017-18.

Missouri Department of Conservation director Sara Parker Pauley welcomes participants to Springfield. Credit: Jodi Stemler

J.R. Flores, Missouri State Conservationist for the Natural Resources Conservation Service explained that partnerships are the key to success in Missouri and that our professional conservation community works closely and collaboratively on many conservation issues important to soil health, water quality, and working lands. However, no successes can be celebrated separately or collaboratively without the participation of voluntary landowners in our combined conservation programs that are designed to help solve problems, increase habitat, and provide ecological services to society as a whole.

Leopold's Conservation Legacy in Missouri

Dr. Susan Flader, an environmental historian and professor emeritus at the University of Missouri provided a historical perspective on Aldo Leopold's connection to Missouri. Flader outlined Leopold's roots in Missouri starting from the late 1920's when he conducted a game survey across the state. His findings from the survey and his understanding of the value of public/private conservation efforts led him to recommend the creation of a non-political conservation commission.

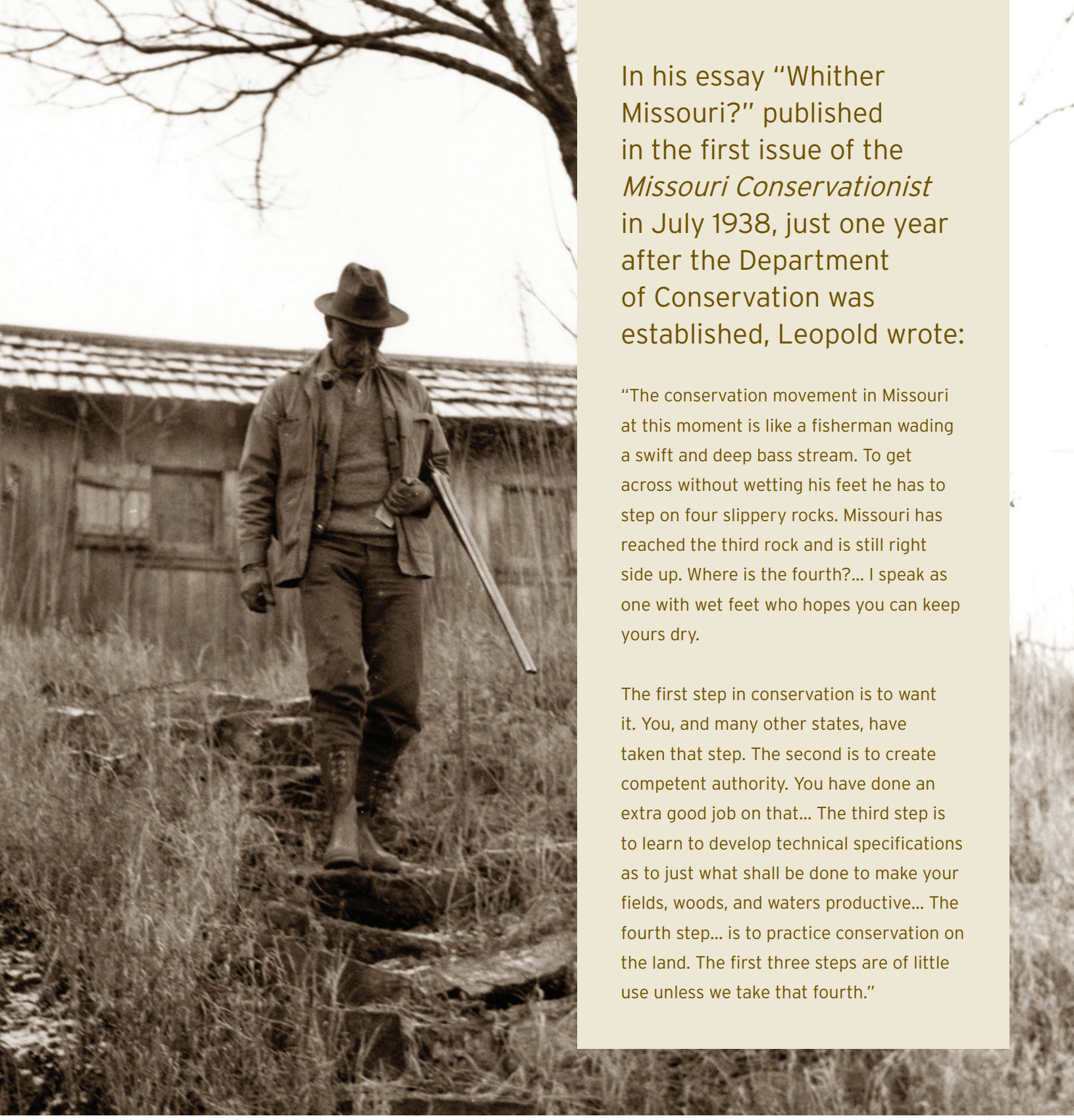
> "Coon Valley, in short, is one of the thousand farm communities which, through the abuse of its originally rich soil, has not only filled the national dinner pail, but has created the Mississippi flood problem, the navigation problem, the overproduction problem, and the problem of its own future continuity." –Aldo Leopold

Dr. Flader also outlined Leopold's work with Hugh Hammond Bennett to develop a demonstration project in the Coon Creek watershed, a once deep, cold-water trout stream in western Wisconsin that was severely degraded and faced significant soil erosion. Started in 1933, this watershed restoration demonstration project was, as Leopold called it in 1935, "An Adventure in Cooperative Conservation" that partnered the Civilian Conservation Corps, Bennett's Soil Conservation Service, and state government with local landowners. The overall goal was to prove that soil and water conservation efforts could be accomplished even while increasing overall farm income. Leopold's Lessons from Coon Valley served as inspiration for PLPD field trip stops and the overall meeting program.

Dr. Susan Flader describes Aldo Leopold's mark on Missouri conservation. Credit: Jodi Stemler

The other Missouri conservation visionary that Dr. Flader introduced to the group was Leo Drey, who was the largest private landowner in the state. From the 1950s to 1970s, Drey acquired approximately 150,000 acres in southwest Missouri's Ozarks that became Pioneer Forest. He implemented single tree selection, uneven-aged forest management practices on his timberlands and was determined to measure and demonstrate the effectiveness of these practices. Drey began a continuous forest inventory that has been completed every year since 1952 – the first year of the inventory he produced 1,100 board feet per acre, and in the 2017 inventory, the forest produced 5,500 board feet per acre. Flader concluded that Drey and his team were able to show that it was "possible to manage Ozark timberlands in a conservative, sustainable fashion for a full array of ecological, social, and cultural values and make a profit besides."

Clearly Leopold and Drey can serve as an example of the possibilities of private land conservation in Missouri – and across the country.



In his essay "Whither Missouri?" published in the first issue of the *Missouri Conservationist* in July 1938, just one year after the Department of Conservation was established, Leopold wrote:

"The conservation movement in Missouri at this moment is like a fisherman wading a swift and deep bass stream. To get across without wetting his feet he has to step on four slippery rocks. Missouri has reached the third rock and is still right side up. Where is the fourth?... I speak as one with wet feet who hopes you can keep yours dry.

The first step in conservation is to want it. You, and many other states, have taken that step. The second is to create competent authority. You have done an extra good job on that... The third step is to learn to develop technical specifications as to just what shall be done to make your fields, woods, and waters productive... The fourth step... is to practice conservation on the land. The first three steps are of little use unless we take that fourth."

Aldo Leopold at his "southern shack" on the Current River in the Missouri Ozarks.
Courtesy of the Aldo Leopold Foundation and the UW-Madison Archives.

Private Lands Partners Day Field Tour
The Ozark Highlands Landscape

Located in southwestern Missouri, the Springfield Plain and White River Hills represent the western portion of the Missouri Ozarks – one of the most biologically diverse ecosystems in the central U.S. The Springfield Plain is a relatively flat rolling hill terrain that, southward, gives way to the rugged, rocky Ozark highland landscape of the White River Hills.

The Ozarks were carved by thousands of years of erosional forces, creating micro-habitats that support 200 species that occur nowhere else. From bats, monarchs, cave-dwelling fish and amphibians, freshwater mussels, darters and shiners, painted buntings, scissor-tailed flycatchers, greater prairie-chickens, and eastern wild turkey to black bear, elk, and white-tailed deer, Missouri has some of the best wildlife viewing and sporting opportunities around.

Missouri is sometimes called the "Stream State" due to its 110,000 miles of streams. In the Ozarks, stream waters run cool, clear, and fast above ground and are associated with a vast underground cave (karst) system. The karst geology maintains and replenishes ground water through above-ground features such as springs, losing streams (streams that drain underground), caves, sinkholes, and similar features in the region.

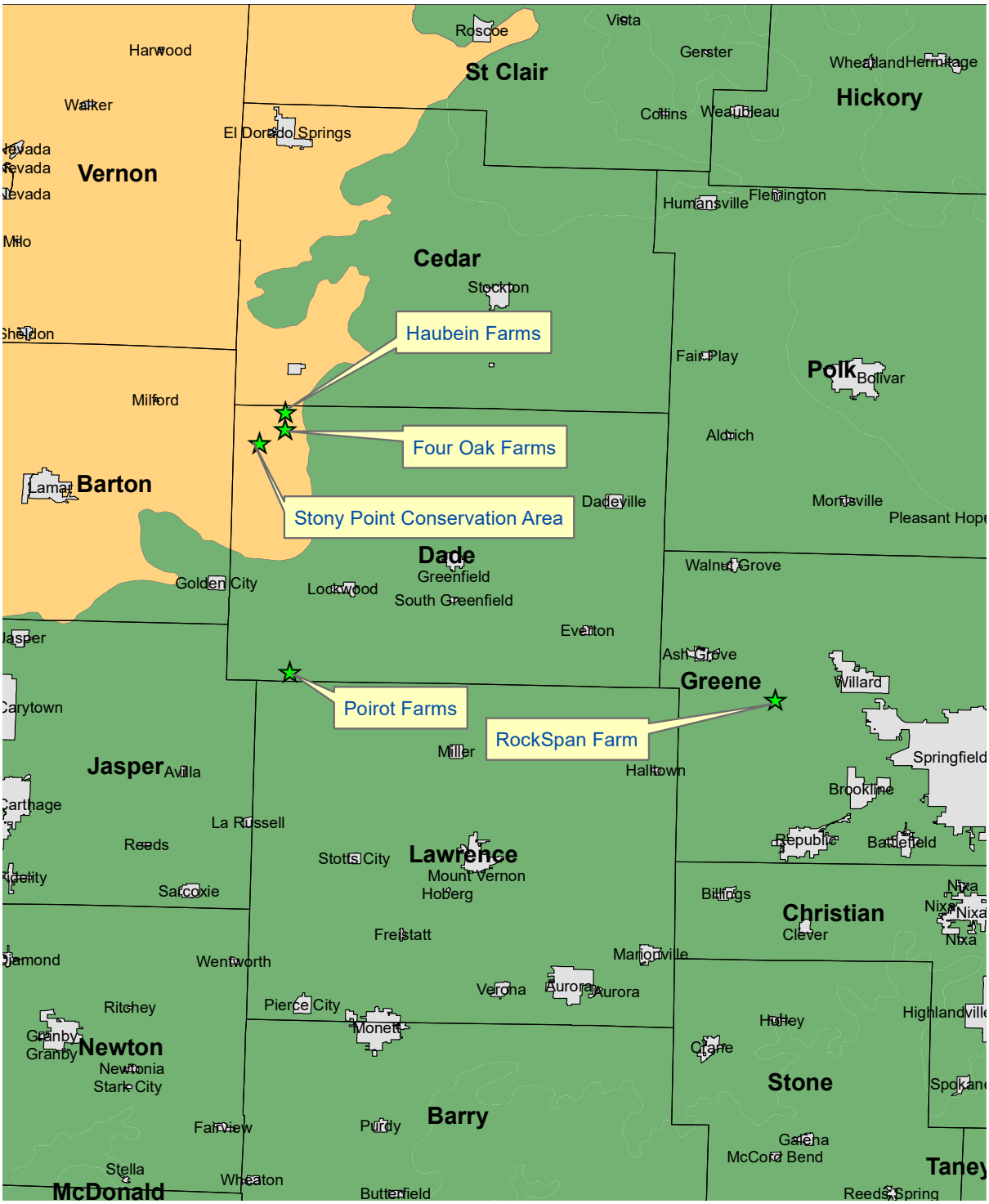
This portion of Missouri features the highest concentration of unbroken prairie in the state as well as an energetic community of working landowners that are innovating ways to incorporate native prairie and the habitat it provides into their profitable enterprises, which allows them to meet economic and environmental objectives.

Mark Boehne of Four Oaks Farms. Credit: Jodi Stemler

The Private Lands Partners Day Field Tour provided the opportunity to visit four private operations and a state conservation area while exploring two main themes: Collaborations improving soil and water health and using cooperative partnerships for conservation. Throughout the course of the day, participants learned about:

- Cattle ranching for grassland birds with a focus on northern bobwhite quail, monarchs, and patch-burn grazing.
- Connecting private working lands and public lands for larger landscape conservation of native prairies.
- Private land stream and wetland conservation aligned with soil health.
- Water quality and quantity practices to conserve karst and groundwater resources.

Field Day Site Visits



Legend

- Missouri Counties
- Cities and Towns

Missouri Ecoregions

- Osage Plains
- Ozark Highlands

Healthy Land Healthy People – Collaborations Improving Soil and Water Health

> "We are surrounded by natural beauty, but we need to make a living. Farming, the environment, tourism can all coexist. Through our efforts we can demonstrate to our neighbors what can happen."
> –Mike Chiles

The natural bridge and cave on RockSpan Farm are characteristic of Missouri's karst topography. Credit: Jodi Stemler

Improving Karst and Water Health

RockSpan Farm: Working in Public/ Private Partnerships for Sustainability

Dan and Mike Chiles have been working to improve their farm and all the habitats contained within in a project they have named the "Sac River Revenant – The River Lives Again." They've embarked on their restoration and enhancement journey with voluntary state and federal partnerships to encourage similar actions in the Sac River Watershed on other private lands. Water is a key component to land health and the health of people who live on the land. The Sac River, which traverses the farm, is a primary source of drinking water for the city of Springfield.

Karst features on the farm also help explain the value of reducing erosion, improving grasslands through prairie plantings, excluding livestock from forests and river bottoms to protect groundwater stored in the karst system from excessive nitrification, and other water quality issues. This farm has both surface and underground water sources. There are caves, springs, natural bridges, and rocky outcrops – all components of karst ecosystems. RockSpan's cave is also home to bats and cave crayfish. In Leopold's address to Missourians in 1938, he challenged Missouri to learn how to develop technical expertise to make fields, woods, and waters productive while balancing agricultural practices. Technical services and practices implemented on this family farm are a great example of getting conservation done.

Speakers during the Field Tour included Missouri Department of Conservation and Department of Natural Resources biologists who described the karst topography in the region and the importance of the caves and springs in the region. In addition, partners with The Nature Conservancy and the Watershed Committee of the Ozarks described the efforts to stabilize the stream banks and improve the water quality through a number of public/private partnerships.

Improving Soil Health

Jonathan and Ben Poirot Farm

This portion of the tour demonstrated lessons learned, lessons forgotten, and lessons renewed on a multi-generational family farm where soil health was a primary challenge back in the 1930's. Eugene Poirot began working his family's farm in the 1920's and at the time it was a worn-out dusty prairie. He found that his livestock developed diseases that were caused by the deficiencies in the soil. Poirot's ability to "read the land" helped to rebuild and maintain soil health to this once depleted landscape, and his family has continued his legacy. Today through voluntary public/private partnerships, Missouri collaborates in multiple ways to promote soil health, so agriculture, the land, and people benefit.

The Poirot family and Master Naturalist Greg Swick discussed the history of the farm, soil health and agricultural use now, and former NRCS district conservationist Drexel Atkisson demonstrated how soil health practices are delivered today through native plantings and cover crops. This farm is what Leopold envisioned the breadbasket of the Midwest to look like – a patchwork of native grass pastures, forests, wetlands, and agriculture linked together holistically so there was a place for all who lived off the land. The family grazes and hays the landscape, and also produces honey using bees that are raised in Missouri and then travel to California and Texas to pollinate agricultural crops there. They are also working with the Missouri Department of Conservation to manage their native grasses through burning and spraying of fescue, as well as changing the timing of their haying in order to give native bobwhite quail time to hatch.

Learning about the Poirot Farm's agricultural operations. Credit: Jodi Stemler

NRCS's Drexel Atkisson describes prairie soil health. Credit: Jodi Stemler

Three generations of the Poirot family. Credit: Jodi Stemler

"Nature is a practical teacher and a moral compass. Poirot's philosophy was to return to the soil the things that were taken from it and give nature time to restore." –Greg Swick

Leopold Lessons – Cooperative Partnerships

Working in voluntary public/private partnerships aids in our collective ability to apply Aldo Leopold's teachings about a sound land ethic and keen awareness of how the land is "put together" focused on fish, wildlife, plants, water, and soil. Leopold understood that no real conservation success could happen without understanding land health and made clear that public land management was not the end-all answer to conservation. It was imperative that the private landowner also have a stake in a holistic treatment and understanding of their own property. Leopold's demonstration project in Wisconsin's Coon Valley was inspiration for the cooperative partnership component of the Private Lands Partners Day Field Tour.

Stops in this segment focused on prairie restoration efforts on neighboring private and public properties. During the Field Tour, participants toured Haubein Farms and the Boehne's Four Oaks Farms, as well as the native prairie in the Stony Point Prairie Conservation Area. These properties are all close in proximity and collaborative efforts with state and federal agencies, as well as non-profit conservation organizations, have broader conservation potential for quail and other declining grassland bird restoration in this "Golden Grassland Quail Focus Area." Landowners were also able to tap into a Natural Resource Conservation Service Regional Conservation Partnership Program grant for grassland birds and grazing land enhancement that integrated work through the FWS Partners for Fish and Wildlife Program, NRCS, MDC and other state and local organizations, and beyond.

MDC's Stony Point Prairie Conservation Area. Credit: Jodi Stemler

Building native grassland habitats by interweaving public and private lands increases the size of the landscapes available for declining grassland birds who need the space and vegetative structure to breed and raise young. Conservation will not be successful for many species if we don't work together around the greater good and find innovative ways to increase the sustainability of rural lifestyles in an ecologically sound way.

Patch Burn Grazing with a Bobwhite Focus

Speakers from the Missouri Prairie Foundation, Quail Forever, MDC, and the landowners discussed their efforts to use patch burn grazing to mirror natural processes in this prairie region. This practice hasn't been used extensively in Missouri but is more beneficial for grassland birds and is good economically for cattle production with landowners seeing as much as 1.75-pounds per day in weight gain. The process also supports warm season plant production with significant variety of native plants – this leads to potential alternative income sources through collection and sale of native seed.

A similar process is being used in the nearby Stony Point Prairie Conservation Area which is working closely with the neighboring private landowners to create a patchwork of managed native grass properties. MDC has learned that the grazing component of management is essential – they documented a 12-fold increase in

Cattle on Dave Haubein's farm. Credit: USDA

grasshopper sparrows where grazing and fire are used together as opposed to fire alone. The grazed units in the area have better nest success and higher adult survival in northern bobwhite because grazing opens up the grass allowing the quail to move around better and yet still have plenty of cover – the tracked birds showed that they spend 90 percent of their time in the grazed or burned units, or both.

The connectivity between properties is important because "quail don't read the signs at property boundaries." Working with the neighboring landowners they have seen benefits to the local quail population with radio-tracked quail moving the 1.2 miles between the Conservation Area and the Haubein property.

Bird-Friendly Beef

Another practice being implemented includes using cover crops on irrigated cropland which has proven successful for soil health as well as offering new grazing options that increase weight gains in cattle. Dave Haubein sees his efforts as a unique opportunity to link real conservation with what people are putting on the table by connecting with "conscientious consumer."

Haubein worked in partnership with the Audubon Society's Conservation Ranching Program to certify "Bird Friendly Beef" – the first approved certification east of the Rockies and High Plains. Then, together with a local food hub, they have launched a new brand called Prairie Bird Pastures that uses the bird-friendly beef in a number of specialty products. Through their marketing, they are creating a real, tangible consumer connection to local farming communities within the state and making a difference for wildlife. Haubein's efforts for certified beef and conservation farming practices were recognized this fall when the farm was named as a finalist for the Missouri Leopold Conservation Award.

Drought Resilience

Importantly, the management techniques implemented by neighboring properties have also seen the value in these conservation efforts during the drought that hit the region the previous summer. Mark Boehne and his son, Corey, have worked with the Partners for Fish and Wildlife program and NRCS to implement rotational grazing and haying on Four Oaks Farms, and this year they found their operation more resilient to drought. Even though they reduced the number of acres available to grazing and had to increase the duration of grazing this year, the native grasses rebounded and they did not have to supplement feed during the drought. As a result, they did not have to sell off stock when the drought persisted, and they were also able to sell their hay to those who needed it. These management changes have also brought Corey back to the family farm ensuring longevity of the management techniques when the farm transitions to the next generation.

"As a food producer, grazing animals are integral to our conservation programs and our soil health. I'm proud of the relationships with all the people we are working with and I'm proud of what we're doing, but as a business I still want to maximize my return. This thing has to make its way, I want to show this as a profitable way to farm and ranch and be good for wildlife." –Dave Haubein

Community Profits – Building Partnerships Around the Greater Good

The first session of the Private Lands Partners Day meeting focused on landowner stories from those who work on their own farms but also are influencing others to work in partnership to maintain and sustain landscapes for the greater good. Whether through economics, hunting heritage, neighboring up for a common goal, sharing ways to work the land in an ecologically sound manner, or addressing the conservation needs of the land with increases in human influence, landowners shared what they have learned so the rest of the audience can share and influence others back home. After hearing about efforts in Missouri to build partnerships for the greater good, speakers from around the country presented their stories about working collaboratively to support community profits.

In addition to the special session panels, Secretary of the Interior Ryan Zinke, Acting Director of the U.S. Fish and Wildlife Service Jim Kurth, Acting Regional Director of the Midwest Region Charlie Wooley, and Acting Chief of the Natural Resources Conservation Service Leonard Jordan addressed the attendees. Their overall message emphasized that voluntary conservation works. With more than 70 percent of the land area in the United States being privately owned – and 93 percent of Missouri in private hands – it is essential to develop collaborative efforts to implement wildlife conservation, soil health, water quality, and other conservation benefits while also ensuring that farmers, ranchers, and forest landowners are able to make a living on their working lands.

"You cannot make change in an area unless you work with the private landowners. The owner of the land has to say, 'This is what I want to do, this is my plan, how can you help me.'" –Rick Holton, Co-founder of Great Rivers Habitat Alliance, describing his work with more than 40 different agencies and organizations for conservation efforts on his property and others at the confluence of the Missouri and Mississippi Rivers. The partnership resulted in restoring and protecting over 30,000 acres of wetland habitat on private lands primarily through funding from FWS Partners for Fish and Wildlife Program, Ducks Unlimited, Inc., MDC, and NRCS.

Missouri Stories

Amy Hamilton, a cattle rancher near Houston, Missouri, reiterated lessons from the Field Tour that grazing on diverse, native grasslands is economically beneficial to cattlemen and is better for land, cattle, and soil health. Research has shown that grazing on tall fescue can cause health problems in cattle. With a native mix of cool and warm season species on her operation, Hamilton has found that diverse native grasses help improve soil health thereby producing 238 percent more grass production on grazing lands resulting in weaning calves 35 days sooner, finding calves were averaging 47 pounds heavier, and finding heifers had a conception rate of 97 percent vs. 64 percent when grazing only on fescue. At the same time, native grasses act as a solar collector and the deep root architecture allows plants to use water whenever rain comes and to take advantage of free fertilizer through nitrogen fixing bacteria and mycorhizal fungi in healthy soils. Bottom line: diverse native grasslands build soil health, improve water infiltration and holding capacity, and speed nutrient cycling – and they are also better for cattle.

Credit: Derrick Roeslein

Rudi Roeslein with Roeslein Alternative Energy wanted to use a market-based solution to provide an alternative funding stream for landowners while also providing valuable wildlife habitat. His solution uses native grasses and prairie flowers for bio-energy and is helping a local hog farm manage manure better to reduce impacts to water quality in northern Missouri. He used $50 million of his own money to develop anaerobic digestion facilities to generate sustainable energy by breaking down organic matter and turning it into methane gas. The remaining solids are used for fertilizer and water for irrigation which he has used to replant native prairie on highly erodible lands, and then use native grasses for biofuels. This is a wholistic and market-based approach to dealing with landscape issues, and the concept is growing as Smithfield has begun to use the system at their hog production facilities in the state and have improved production in a more environmentally and sustainable way. The methane developed is being injected into a national pipeline and transported to other markets, and the grasslands being restored will reduce erosion on highly erodible lands in northern Missouri, reduce nutrient runoff, and will help with water sequestration thereby protecting water quality in Missouri streams.

Regional and National Stories

Three Creeks Grazing Partnership

Partners in Utah discussed how 36 local landowners worked together on 135,000 acres of federal, state, and private lands to share their grazing management. Landowners gave up their individual federal grazing permits to work collaboratively through one grazing permit as part of the Three Creeks Grazing LLC. Mellissa Wood with the Bureau of Land Management and Troy Forrest with the Utah Department of Agriculture and Forestry's Grazing Improvement Program described the community's efforts to improve range conditions. Recent response has been to reduce stocking numbers but this was still not meeting the desired conditions, so landowners worked together to change to more intensive management. Through a 7-year NEPA process, they've been able to research the positive impacts this is having on the rangelands.

"I view cattle simply as a tool – cattle help me take something that doesn't taste very good and turn it into something that tastes very good. I try to take care of the land for my son, and the people that follow him. We are in the business of providing a product. I believe there are better management practices that help us do what we do. Our rangelands in northern Utah were in trouble. I didn't initially embrace rotational grazing but was put in position where I had to do it – and I can tell you it works." –Bill Kennedy, rancher/landowner Three Creeks Grazing LLC

Black Leg Ranch, North Dakota

Jerry Doan's Black Leg Ranch in North Dakota uses intensive grazing to promote soil health. It's a diversified operation that has high animal impact, and a long recovery period. Through programs like the FWS Partners for Fish and Wildlife program they've worked to protect riparian areas, plant cover crops, and restore native grasses on highly erodible soils. A friend in the cattle industry told Jerry that he had come to the conclusion that there can't be profitability in cattle, but Doan doesn't believe it. All four of Doan's children left for college across the country, and the ranch has added enterprises to bring the next generation back including a full-service hunting/guiding business, as well as agritourism and corporate events that help spread a positive image of agriculture and grasslands. They've also enrolled in Audubon's Bird Friendly Beef program with great success.

Bison and Native Grasslands

Mike DeCook asked the participants if you could have wildlife and ecological landscapes and be profitable – and then explained how he does just that. He raises bison in Iowa and is working to restore the landscape on his property that features native oak-savannah habitat. However, the property was facing invasive species challenges that were limiting oak regrowth. Fire and proper grazing have brought back the diversity of the native landscape, particularly helping grassland birds. DeCook said: "I believe in the intrinsic value of nature, it has value without the economics, and if you focus solely on the economics you lose that natural focus. I've learned that wildness and agriculture can coexist on the same land, they are not mutually exclusive."

Fox River Cattlemen's Association

Similar grazing challenges are seen in many states – including in the last frontier of Alaska. Chris Rainwater described the federal "lease in common" held by the Fox River Cattlemen's Association with a total of five different landowners on national forest land. This unique habitat at the mouth of Kachimak Bay also has two critical habitat designations and is a migratory bird staging area. The cattlemen believed that cattle did not have a significant impact on the resources of concern and that cattle can be included in the goal of highest and best use to fit within a multiple use regime.

Future Generations and the Land

A question that resonates with many landowners is "what happens to my land when I'm gone?" During the afternoon session participants heard from landowners in Missouri, the Midwest, and from around the country who are developing innovative strategies as well as important approaches to engaging youth and bringing family along in farm management. Speakers talked about connecting with resource professionals for guidance on agricultural, conservation, and farm finances. Through collaboration, communication, and cooperative conservation strategies, we can maintain the future of working landscapes and conserve wild things that depend on the land as well as provide for a human connection to the land.

Missouri Stories

The Missouri Agricultural Wetlands Initiative (MAWI)

Through a cooperative venture between the Missouri Department of Conservation, Ducks Unlimited, Inc., FWS Partners for Fish and Wildlife Program, and USDA's Farm Service Agency and Natural Resources Conservation Service, Gary Lawrence described for the audience the cooperative approach for compatibility of wetland conservation in an agricultural setting. Through MAWI, wetland conservation focuses on the principle of collaboration, improving water quality and wildlife habitat in an important mid-latitude state for

Sand County Foundation Leopold Conservation Award winners in attendance pictured with Aldo Leopold scholar Dr. Susan Flader. From left to right: Jay and Diane Tanner - Utah, Homer and Darla Buell - Nebraska, Russell Davis - Colorado, Dr. Susan Flader, Bill and Peggy Sproul - Kansas, Gary and Sue Price - Texas, Jerry and Renae Doan - North Dakota. Credit: Jodi Stemler

migratory waterfowl and wetland dependent birds. MAWI helps landowners manage wetlands as part of an integrated plan to protect agricultural production, buffer stream habitats thereby improving soil and water health, reducing production costs, increasing recreational opportunities, and creating potential income from recreational leases. He expressed that cooperation among agencies was outstanding and not seen elsewhere and that landowners need to tell their stories about collaborative conservation so that we can all leave something lasting for the next generation to enjoy and appreciate by leaving the land a little better than you found it.

2017 Aldo Leopold Award Winner

Kate Lambert and her husband Matt received the inaugural Missouri Leopold Conservation Award in 2017 for their voluntary stewardship and natural resource management efforts on their Uptown Farms. Lambert told the audience that conservation and production agriculture can and do go well together. She emphasized that telling that conservation story is very important for it to succeed and that conservation has to be beneficial and practical – and not hinder the long-term profitability of operations. Lambert also noted that government and non-profit programs can help with cash flow and liquidity to allow landowners to make changes, and these are vital to bring the ship closer to shore so that farmers and ranchers can get onboard.

"No Till. No Money"

Though she is still a college student, Emily Brunner is engaging within her family's operation and at the state level to ensure the future of agriculture in the state and on her own family farm. She emphasized that fixing the problems at home can help keep the next generation on the land and that the next generation can help bring home new ideas to support agricultural conservation. Several family members were heavily engaged in production agriculture, but they've realized that no-till has made a big difference for their land by increasing yield. They are starting to integrate cover crops onto the land and recognizing that no till does not equal no money.

Programs to Support Transition

Working to transition his operation to his nephew, Harry Cope is focused not just on conservation but on regeneration of the landscape. His advice to the audience was that thinking long term is what is needed to make conservation efforts and family operations work. Cope recognized that cost-share programs to

transition to native Missouri forage have enabled his cattle operation to become sustainable much faster than if he'd embarked on his own. He emphasized that to recruit and retain young cattlemen, it's essential to provide affordable options for the next generation to get started including financial arrangements that let young farmers acquire ownership of the cattle and calves. Programs such as tax credits, management credit, and loans for beginning farmers, along with farm business management programs, can all help with the transition.

Regional and National Stories

Camp St. Clair

Sam St. Clair and his wife, Sara, attended Private Lands Partners Day the past two years and they continue to be inspired by the creative operations that are showing how voluntary conservation on private land can work. On their property in Indiana, the family has created "Camp St. Clair" with their grandkids, hosting woodcutting parties, hunting together, and sharing the farm with the family to help create a strong connection to the property. They are working with a lawyer to set up an irrevocable trust with their children as trustees to ensure the property transitions smoothly to the next generation.

Cattle and Conservation Easements

In northern Minnesota, Kirt and Heidi Abraham are raising cattle on 1,500 acres they own and a similar amount of property they lease. They explained they have been able to expand their operation through the funds they received from the FWS working with the Partners for Fish and Wildlife Program, restoring and protecting 100 wetland basins on the farm for 120 acres of important nesting waterfowl habitat through perpetual wetland easements. Their goal is to keep their property and the other farms as working ranches that are profitable and sustainable for wildlife and cattle, as well as for their family and future generations. Their advice to anyone wanting to engage in a wetland conservation easement is to have an open mind, learn about the program rules, and have trust in the FWS agency professionals. The Abrahams believe that having this strong working partnership will be beneficial for the landowner, will keep birds and other wildlife on the farm, and will help their kids and grandkids build off the foundation they have started.

> "What made me extricate myself from my family's innate distrust of government? One person cannot save a river or a watershed alone, we need the help and expertise of the partnerships of government agencies and non-profit organizations and the Landowner Incentive Program helped us partner with the Fish and Wildlife Service, NRCS, and the state to restore savanna grasslands, to help golden-cheeked warblers. My objective is to encourage landowners large and small to see that food security and economic well-being all depend on the health of the land."
>
> –Ruth Russell, landowner near San Antonio, Texas

Farming with the Land

John Dassow's family has been working their property in Illinois since 1865 and John is the 6th generation farmer. His operation includes 1,300 acres of crop land with 450 acres in the Conservation Reserve Program, but only a small part of his farm is family owned and the rest is rented from five different landowners. Conservation efforts began with his grandfather who implemented crop rotation, no-till practices, and conservation on highly-erodible lands; his dad brought livestock back and implemented terraces and

alternative crops. Dassow has continued and expanded these practices and is also restoring wetlands, implementing timber management for old growth bur oak, and pasture restoration for pollinators. "My reward is seeing the next generation grow up, explore, learn, and see things that so many people don't get to experience anymore."

Succession and Estate Planning

The final panel of the day focused on the importance of succession and estate planning for continuing the family operation. Panelists included two landowners, a representative of a federal agency, and a representative from a non-profit conservation organization.

Tuda Libby Crews with the Ute Creek Cattle Company in New Mexico faced significant and expensive challenges when her large family ranch was transitioned from her parents to her generation; as a result, she became very proactive in planning her own estate. Thomas McAvoy Jr. is a landowner in Connecticut who is also a senior bank officer providing estate and succession planning services. Rebecca Landewe with The Nature Conservancy and Matt Filsinger, national program lead for the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program, outlined how partner agencies and organizations can also provide support for family farm transitions.

Through preliminary questions as well as questions from the audience, panelists were asked to provide their own perspectives on the challenges and opportunities with planning how to move management of an operation to the next generation.

Know the Difference

Panelists outlined how succession and estate planning are really two different things, but they need to be tied hand in hand. A succession plan for a farm or ranch (or really any business) is outlining who will carry on the business. The goal is to make this a smooth transition, but it is not always that easy. Being prepared before there is an immediate need to transition an operation will help family members to walk through the potential challenges that need to be addressed. Estate planning

"The most important consideration is communication. As a landowner, you need to think about what you want to do with the land and then be proactive and gather your children/heirs and talk it through with them. Make sure there's a professional at the table that can help establish ground rules and to ensure that everyone is engaged. The more information you have the better conversation you will have in a congenial manner. Most importantly, listen – listen with your eyes as well as your ears because 7 percent of communications is verbal, 33 percent is tone, and the rest is body language."

–Tuda Libby Crews – Ute Creek Cattle Company, New Mexico

Credit: Jeremy Roberts

Succession and Estate Planning session panelists, from left to right: Tom McAvoy, Matt Filsinger, Tuda Libby Crews, and Rebecca Landewe. Credit: Jodi Stemler

may start with succession planning and can help start the conversation. This involves legal and financial documents that will codify the succession plan and can also direct the intention for the future of the operation. Families should identify resources and work with trusted advisors to navigate the process.

Tom McAvoy recommended four primary documents that every landowner, large or small, should have:

- Will – Determine who will be the executor and administrator of your estate and how property (both land and goods) will be distributed.

- Financial Power of Attorney – If you become incapacitated who will make decisions as far as finances?

- Living Will – This outlines your choices for extraordinary measures and helps to make the determinations before there is a need.

- Healthcare power of attorney – This provides authority for an individual to make decisions and advocate for you.

Support from Conservation Partners

Partner agencies and organizations can help families clarify their goals and think through the many possibilities available to them. They can provide a toolbox of options so that landowners can identify what will work best for their individual operation and for their family. Landewe says that The Nature Conservancy has held estate planning workshops in local communities to help farmers and ranchers with succession and estate plans. In addition, organizations can help connect landowners with resources and outline conservation options. Filsinger noted that partner biologists with FWS and state conservation agencies are the front lines building long-term relationships with the people on the ground. Both speakers discussed conservation easements as options for keeping the property as a working farm or ranch that can also help outline how the property should be managed. In addition, conservation management plans are another tool to help document a vision for how the current landowners hope the next generation will manage the operation to ensure the vision is continued. However, as Filsinger pointed out, best

management practices today might not be the same tomorrow so ensuring the overall vision is strong without being too prescriptive on specific activities is a good idea.

Considering Assets

Several questions focused on the challenges of being equitable within the family, particularly if one heir wants to stay on the farm and others do not. Speakers outlined that, once again, this goes back to communication – making sure everyone is clear on what the others want for the future. These multi-generational discussions can help to outline the values within the operation and identify where interests lie. There also may be other ways to satisfy the needs of heirs that are not interested in the physical property including life insurance or other investments. McAvoy pointed out that most of the discussion had focused on families where things are working well. However, we have to be honest about our family – can we truly treat everyone equal? There can be situations of addiction, mental instability, or a potential divorce that can undermine the desire to be fair. These factors must be considered because without honest evaluation and communication in advance, these challenges could become extremely costly and threaten the continuity of the family operation.

"Unlike an IRA or bank account, land is not uniform and so it is often difficult to divide it evenly among heirs. Farmland, buildings, timberland, and homes all have different values and each of your heirs may have various levels of emotional attachment. There are numerous ownership structures (e.g. Transfer on Death, Partnership, Limited Liability Company) and each have pros and cons to consider and discuss with your advisors." –From TNC Sucession Planning for the Family Farm handout

Trusts

The panelists discussed the ideas of trusts, including living trusts, a trust that goes into effect upon your death, and irrevocable trusts. Trusts offer some degree of asset protection because future challenges through litigation or divorce or other unforeseen circumstances will only affect the parts of the estate that are outside the trust. Trusts also allow for more detailed expression of your desires about how the land and operation should be handled. As far as irrevocable trusts, McAvoy said that this is a big decision. An irrevocable trust gives up control of the land and takes it out of the estate. As a result, he typically recommends a living trust that is revocable that provides explicit recommendations on certain things. Once again, it comes down to sitting with your family and a professional to help understand what you need to consider and your options.

Additional Recommended Resources from The Nature Conservancy:

Getting Your Affairs in Order: https://agnr.osu.edu/sites/agnr/files/imce/pdfs/publications/OSUExtension-GettingYourAffairsinOrder-writeable.pdf

Ties to the Land: http://tiestotheland.org/resources-land-owners

Farm Transitions Toolkit: https://landstewardshipproject.org/morefarmers/farmtransitiontools/farmtransitionstoolkit

Toolbox for Farm Transfer Planning: http://landforgood.org/resources/toolbox/toolbox-farm-families/

Credit: Chris Woodson, USFWS

Summary

Missouri was an ideal place to convene the 11th annual Private Lands Partners Day given the state's long tradition of conservation partnerships, concern with natural resources issues by the general population, and a long-demonstrated emphasis on the importance of encouraging private lands conservation work to sustain wildlife and fish populations and benefit other natural resources critical to the state such as water quality and quantity. The early embrace of Leopold and his teachings continue to serve the people and resources of Missouri very well. This was most clearly demonstrated during the field trip by the commitment of the private landowners and their partners to deriving multiple benefits from their work together. This came from landowners whose backgrounds and family tenure on the land was quite diverse, but who shared a vision of ensuring their land stewardship was based on the idea that sustaining ecological, economical, and sociological values were all important.

Each year Private Lands Partners Day is held in a different location. It is not surprising that there are regional differences in production systems and land use, but what may be surprising to some is the similarities in the stories, opportunities, and concerns shared by landowners and partners from across the country. A number of themes emerged from Missouri and from around the country during the conference portion of the meeting. The themes made clear that the attendees and the partnerships they represented were respectful and concerned with the past, present, and future of their work with partners on shared visions of success.

From the past, Leopold's impact on the natural resource management landscape of Missouri, along with the perhaps lesser known Leo Drey and Eugene Poirot, made it clear from the outset that the state is a place that has long recognized the importance of multiple-outcome cooperation. This idea that landowners of today are in many cases building on a legacy of relationships from the past was echoed in several of the presentations from across the country as well.

Credit: Jodi Stemler

From the present, the attendees learned about new emphasis on topics such as soil health and heard about innovations in relationships and agricultural business management demonstrated through the work the landowners and partners engaged in the Three Creeks Project in Utah and the bird friendly beef project in North Dakota as well as Missouri.

Equally evident were landowners and partners who are concerned about the future but committed to doing all they can to make sure it is bright. From the vision of turning waste into energy presented by Rudi Roeslein to the deep engagement by attendees in the landownership succession panel to the near uniform inclusion of consideration for future generations in all of the field and conference presentations. In Missouri, probably more than any previous Private Lands Partners Day, the attendance and engagement of multiple generations from many operations is the strongest indication that those who come to this meeting are committed to partnership and good stewardship for the long term.

The stories and presentations including the results of these cooperative efforts make clear that when people of diverse perspectives can come together around a vision of success there is little that cannot be accomplished, whether it is on an individual farm or ranch or a watershed spanning many thousands of acres.

Thank you to the 2018 Private Lands Partners Day Sponsors

Special thanks to Lisa Farmer with the Bureau of Community Health and Wellness Department of Health and Senior Services for coordinating the Taste of Missouri Fall Field to Fork dinner, as well as all the vendors:

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