

GROUSE PARTNERSHIP NEWS

Fall 2022





GROUSE PARTNERSHIP NEWS

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WITHOUT THE PLANTS, THE BIRDS DON'T DANCE



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Cover Photo: Stacy Hoeme, rancher in western Kansas, holds a lesser prairie-chicken prepared for translocation to Colorado. He and other landowner leaders in the Lesser Prairie-Chicken Landowner Alliance are influencing government agencies to help conserve prairies and lesser prairie-chicken habitat.

Message from Jon Haufler, NAGP President

The North American Grouse Partnership (NAGP) has had a productive year since our last newsletter. We added Jodie Provost to our staff as our Communications Director. She has been a great addition to our team, allowing our Executive Director Ted Koch to devote more time to policy and conservation delivery programs, and complimenting the continuing work of Terry Riley, our Policy Director. We helped launch the Lesser Prairie-chicken Landowner Alliance as a landowner voice for effective lesser prairie-chicken conservation. We have developed an NAGP conservation strategy for lesser prairie-chicken and are promoting actions to implement it. We assisted the greater prairie-chicken and sharp-tailed grouse interstate working groups in completing a report on a conservation strategy for these species. We have expanded Prairie Grouse Partners with additional organizations eager to assist in moving additional conservation actions forward. We have continued our efforts in the policy arena to expand funding, programs, and practices that can benefit prairie grouse and sage-grouse. We have supported partners in advancing the proposed North American Grasslands Conservation Act and the Grasslands Roadmap - both could result in more resources for prairie ecosystem conservation and restoration. And we have worked with partner organizations in projects to produce on-the-ground lesser prairie-chicken habitat improvements. Thus, we continue to be an engaged, productive, and respected organization advocating for grouse and grouse habitats.

However, some grouse species have not had a good year. Reports on sage-grouse populations are increasingly alarming. We expect to hear soon from the U.S. Fish and Wildlife Service on their listing decision for lesser prairie-chickens. Other species are affected by continued losses of habitat to conversions and other impacts. Unsound policy decisions divert needed funds or cause habitat losses. Last year, Eastern Montana had exceptional drought followed this year in Yellowstone National Park by record flooding. Our climate is changing. Our grouse populations are impacted by these changes. The challenges and threats to many of our grouse species are increasing, making the need for a dedicated voice for grouse conservation even more critical.

The next year will see new opportunities to make positive gains. Discussions around a new Farm Bill can provide potential new avenues for targeted funding to improve grouse habitats. Our expanded partnerships and landowner engagements can help identify locations and cooperative projects to deliver grouse habitat improvements. New expansions in funding sources can focus on grouse and grassland ecosystem restoration.

The importance of NAGP and engaged grouse enthusiasts like our members has never been greater. Our dedicated Staff and Board of Directors along with our Council of Scientists are working to make NAGP as effective an organization as possible in advancing grouse conservation. We continue to need the support of our members, both through financial assistance and as volunteers. As noted in this newsletter, we lost one of our devoted Board members this year, Doug Pineo. He is dearly missed.

Please provide NAGP your support by contributing what you can to the organization, and/or volunteering your time to help. Please send us whatever funding support you can, and let Jodie and Ted know if you can help by volunteering. Thank you for caring about our native grouse and the diverse habitats that support these spectacular species.

Jon Haufler



Message from Ted Koch, Executive Director

It has been a year of progress for North American grouse, especially prairie grouse, but this progress comes in the face of increasing challenges. The good news is that prairies and grasslands are getting more attention and effort to conserve them. The bad news is that this effort is because we increasingly recognize the severity of threats to them.

One important issue we have spent time on this year is supporting introduction in Congress of the North American Grasslands Conservation Act (NAGCA). This legislation is a big step for prairie grouse and other species. NAGP has spoken publicly and informed and asked legislators to support bill introduction.

The messages that resonate with lawmakers are: 1. That grasslands are the most threatened habitat type on the continent and in the world, and 2. Grassland bird species have declined in abundance more than any other group of birds – a 40-percent decline over the past 50 years.

Notably, the only group of birds that did not decline over the past 50 years are wetland-dependent birds. Why? In large part because the North American Wetlands Conservation Act has helped protect and restore them. This successful model is obviously why we need the NAGCA. And we need it now.

We've also participated in the Central Grasslands Roadmap process, assembling like-minded conservationists to elevate grasslands conservation. The process has provided an inspiring and innovative forum for all prairie-lovers.

We are working towards improved implementation of Farm Bill Conservation Title programs both now, and looking forward to a new reauthorization in 2023. And we're helping guide conservation efforts for sage-grouse, greater prairie-chickens, and sharp-tailed grouse by supporting or leading advocacy and communication efforts.

Most important, we helped establish the Lesser Prairie-Chicken Landowner Alliance (LPCLA). This group of landowner-leaders in conservation is striving to guide protection and restoration of grasslands in the southwestern Great Plains. They chose to name themselves after the lesser prairie-chicken to unify their conservation efforts.

With our support, the LPCLA is identifying opportunities to improve conservation program design and delivery, and develop private markets for conservation goods and services. Currently, their only commercial opportunity is to raise and sell beef. Yet they provide multiple goods and services important to all Americans, including healthy soil, native vegetation, clean water and air, carbon sequestration, and wildlife habitat. We must find a way to adequately compensate them.

Currently, 90 percent of lesser prairie-chicken habitat is on private lands. Thus, the LPCLA is a critical group to help lead recovery efforts. The U.S. Fish & Wildlife Service is long overdue to decide whether to list lesser prairie-chickens under the Endangered Species Act. A state-led conservation effort lost steam in recent years. But we're not waiting. We will continue to drive ahead, and hope government agencies catch up soon.

Finally, as we were going to press, we had sad news and good news. The sad news is that we lost an invaluable ally in grouse conservation. NAGP Board member Doug Pineo, from eastern Washington, recently passed away. Doug was important in many ways, including as a founder of NAGP 22 years ago. Doug's passion and enthusiasm for grouse set a standard for others, including me. I knew I had to be on my game when I talked to Doug, because he would be miles ahead of me on whatever the subject, and he significantly influenced my work. His conservation contributions go far beyond grouse too. The board and I will miss him. We wish the Pineo family and his friends all love as they move forward. I choose to picture him in autumn prairies with falcons and dogs, pursuing endlessly abundant prairie grouse, and wearing his broad smile forever.

The good news is that our Communications Director, Jodie Provost, received the Hamerstrom Award recently at the 2022 Prairie Grouse Technical Council Meeting in Lewistown, Montana. This award was established in honor of Fred and Fran Hamerstrom, pioneers of prairie grouse research and management. Jodie was recognized for her significant contributions to sharp-tailed grouse habitat management and outreach over her 30-year career with Minnesota DNR Section of Wildlife and volunteer work with Minnesota Sharp-tailed Grouse Society. Congrats, Jodie. We are glad to have you with NAGP!

Ted Koch



Photo by Brandon Barry

Memories and Reflections of a Friend: Doug Pineo Memorial

Dan Cecchini, Jr.

Doug Pineo was one of the nine conservationist / falconers who were founding Directors of the North American Grouse Partnership, which formally incorporated in Idaho in January of 2000. Doug passed on September 7, 2022 at his home in Spokane, Washington; he was 72.

Kind and warm-hearted words from some of his colleagues, such as fellow founding NAGP Director, Steve Sherrod, that have been used to describe Doug include: good friend, devoted husband, family man, falconer, fisherman, biologist, conservationist, artist/designer, businessman, intelligent, thinker, philosopher, gifted speaker, politic savvy.

Another fellow founding NAGP Director, Ralph Rogers, offered up his personal reflections on saying goodbye to his friend:

I received a hood from Doug just a few weeks ago and now, that is a lifetime ago. The photo shows just two of an uncountable number of hoods over a 50-year friendship. When I asked him for the recent hood, we spent our usual too-long phone call which had evolved over the years from falconry, to what our respective families were doing now. Over the decades I guess we had already covered bird discussions well. With his passing, I was tempted to place the hood on a shelf, but that is not what Doug would want. Had this tragedy not occurred, Doug the perfectionist, would have called a few months into the fall to check to see how the hood fit the new peregrine; we would discuss family, birds, conservation, hunting plans, and again, we would talk too long. This loss leaves a powerful silence.

At least in my falconry life, Doug has always been there for adventures both his and mine. I was shoulder to shoulder with Doug hanging floor joists in the new P-Fund breeding barns in 1984 when he famously sent a 16-penny nail through his femur with a nail gun. My wife, Melissa, drove him to the hospital and was there when he reappeared, still on sedatives, and laughing about how the surgeon had no clue what to do. Doug loved the story of how the Doc called the hospital carpenter, and ultimately autoclaved a vice grip and other carpenter's tools to remove the nail. Doug, back in camp, quickly began building the hoods every one of the falconers on the jobsite had been begging for. It has been a distinct honor to have spent the last 50 years shoulder to shoulder with Doug Pineo, not only building the P-Fund buildings, but also



founding the North American Grouse Partnership, serving simultaneously on multiple falcon-related boards, working to improve Grouse habitats, or discussing watersheds, or founding the Falconry Fund. His works for North American Falconers Association (NAFA), his always colorful explanations and command of the English language tempered everything and can't be measured. He was a highly qualified ideologue who had grown into a well-known conservationist. Doug was like many of the falconers I knew from an earlier generation; recognizing fair chase as the essence of falconry, always respecting/understanding/loving the raptors and game animals we pursue, constantly advocating for the intact environments without which falconry perishes; he educated, sold, marketed, and implemented conservation. It wasn't just because he loved falconry but because of a deep understanding and love of wild places and things. John and Frank Craighead visited India when young and their conclusion was that falconry wouldn't work in the USA because "first you must become the complete naturalist"... They never spent enough time with Doug Pineo. But beyond all that, he was a friend, a dear friend whose family had grown up at the same time as ours. I think of what they are going through and know our community will help with anything they need. Rest easy my friend.

Fellow NAGP Director, Dan Cecchini writes.

"As someone who worked with Doug as a NAGP Director for the last 10 years and with him in NAFA for the past 35-40 years, I had a real appreciation for Doug's work and passion for healthy environments and wildlife populations, as well as being a passionate and meticulous falconer and outdoor sportsman.

"I reflected on how Doug made beautiful falconry equipment, but more importantly, it is also extremely functional and durable. In addition to my treasured Pineo peregrine hood from 20 years ago, I have my many years old Pineo falconry vest and game bag. Both are covered in dirt, blood, bird crap, have feathers and bits of desiccated meat in the pockets and they are a bit folded and mutilated, but still function like they were new. I also love the genuine Pineo label on the side pocket, as well as the "Made in USA" label sewed onto the back.

"Hundreds, if not thousands of falconers, will not head off into the field with their hawks and falcons, without their Pineo falconry vest on each fall. We will miss Doug, but for a fortunate few of us, we literally carry a reminder of him each time we head out into the field with our hawks."

Doug was a talented and passionate writer. Finally, in some of Doug's own words, from an article he wrote roughly 30 years ago, you can hear some of the things and priorities that others have said about Doug, in his own unique communication style.

"With all of those years I spent studying ecology and learning to make falcon hoods, or read the baetis hatch, I could have become a CPA. No, a doctor. Wait a minute, they're like me, always putting restorative pursuits behind a great burlap-covered ball of obligations and commitment they insist on pushing or pulling around. Anyway, I hedged my bets, and here I am, my profession as a landscape ecologist carrying the back beat and paying the mortgage, and making hoods when I can get to them after family and work, providing the resources necessary to fly hunting falcons. But not all or even the principal resource...

"The principal resource of falconry is not the falcon, not the sky, not the little electronic toys and leather trinkets we fuss over like matrons in a milliner's shop. ... The principal resource of falconry is the land. ... Without the land ... there is nothing."



Pheasants Forever/Quail Forever (PF/QF) – Answering the Call for Grouse

Howard K. Vincent

Depending on where you live in the grouse range, summer is all but over, grouse broods have entered adulthood, pollinators are enjoying the last of autumn blooms, and the upland season is upon us.

Much like the changing seasons, Pheasants Forever and Quail Forever’s habitat conservation mission continues forward, including critical habitat work for prairie grouse species across their range:

Biologist Support: Pheasants Forever’s investment in hiring and managing biologists across the prairie grouse range is a great example of the organization’s long-term commitment to improving sagebrush and shortgrass prairie (2 million acres per year) habitat on public and private lands. We currently employ one of the largest collections of wildlife biologists in the country – second only to the U.S. Fish & Wildlife Service.

Smart Grazing: Helping ranchers improve range health across prime sagebrush habitat through sustainable livestock grazing strategies to promote diverse, native plant communities for grouse.

Eliminating Woody Cover: Prairie grouse hate trees; in fact, research shows they avoid nesting in areas with more than a tree per acre. Pheasants Forever and its partners have helped strategically remove encroaching trees to restore over a half-million acres of sagebrush habitat.

Water Conservation: Research shows that sage-grouse cluster 85% of their breeding sites within 6 miles of wet habitats so hens and chicks can feed. Pheasants Forever and partners lead hands-on field workshops to train in the low-tech methods of restoring wet habitat (such as hand-built stone structures, mimicking beaver dams or grazing management) in drought-stricken regions of the West.

All our efforts for grouse species are combined in the final year and home stretch of The Habitat Organization’s monumental Call of the Uplands® campaign.

If you haven’t heard about Call of the Uplands yet, you must be living under a clump of sagebrush. Call of the Uplands is Pheasants Forever and Quail Forever’s \$500 million strategic and science-based campaign to save our endangered uplands before it is too late. The campaign’s goals center on:

Habitat Conservation

Enhancing and restoring 9 million acres of upland habitat while permanently protecting 75,000 acres for wildlife and public access.

Education & Outreach

Engaging 1.5 million participants in the outdoors to build new conservationists for the habitat mission.

Advocacy

Giving grasslands and sagebrush steppe a voice in a big way, especially on Capitol Hill as Pheasants Forever and partners forge ahead on making the North American Grasslands Conservation Act a reality (Take action at www.ActforGrasslands.org).

It takes money and personal dedication from conservationists to meet impactful goals like these. We are doing it. Looking back,

Thank You for listening to the Call of the Uplands and contributing. Looking ahead, thank you for what you will yet do to “Answer the Call” as the campaign gears up for its final months before sunseting in February 2023.

The Call of the Uplands campaign may be in its home stretch. But there is no home stretch for our mission: That’s what FOREVER is about, and it includes our iconic prairie grouse species.

Learn more at CalloftheUplands.org



Saunter Down the “Grouse Trail” at National Pheasant Fest, February 17-19, 2023 in Minneapolis, Minnesota

Grouse fans, shake off the winter blahs by venturing to National Pheasant Fest from February 17-19 at the Minneapolis Convention Center in Minnesota. Saunter down a special “Grouse Trail” beside the Public Lands Pavilion to visit the North American Grouse Partnership booth. Partners including the Ruffed Grouse Society, Minnesota Sharp-tailed Grouse Society, Minnesota Prairie-Chicken Society, and Wisconsin Sharp-tailed Grouse Society will also have booths along the trail. Please stop by to shoot the breeze with fellow grouse and habitat enthusiasts, and support these conservation organizations. Plans for a “Grouse Trail” social hour are in the works. Enjoy the many exhibitors and activities that Pheasant Fest has to offer. There is something for everyone – youth, dog lovers, hunters, landowners, wild game foodies, habitat managers, and more. For more information, see pheasantsforever.org/Pheasant-Fest.

Ruffed Grouse Society/American Woodcock Society (RGS/AWS)



Benjamin C. Jones

Ruffed grouse populations have declined by as much as 84% across parts of their range, with greater than 50% decline documented across the Eastern U.S. according to the Association of Fish and Wildlife Agencies (AFWA) Eastern Grouse Working Group (Ruffed Grouse Population Declines in the Eastern United States, December 2020).

As with other North American grouse, habitat is key, especially considering West Nile Virus and other compounding stressors. Ruffed grouse and are a bellwether of forest health, and their decline is indicative of habitat condition.

Due to past land use, the majority of eastern forests today are 90 – 125 years old. The lack of age, and hence structural diversity, is a major issue affecting forest health, climate resilience, and all forest wildlife habitat (not just ruffed grouse). Unnatural, single-aged forest condition is a major problem cited in nearly all State Wildlife Action Plans, State Forest Action Plans and forest health reports across the eastern U.S.

Nurturing old forests takes time and cultivating young forests takes disturbance, specifically, active management and timber harvest. Challenges affecting management at scale include wood product markets, varying community support for logging and landowner technical support. Together with agency, NGO and industry partners, the Ruffed Grouse Society’s Forest Conservation Directors are building partnerships to accomplish forest habitat improvement at scale.

Ruffed grouse are extirpated or nearing extirpation in parts of their historic range. According to the AFWA working group, “*It seems probable that grouse populations will continue their rapid decline in the Eastern U.S unless wildlife agencies, partners, and private landowners undertake immediate conservation efforts.*” There is much at stake.

The Nature Conservancy (TNC)

Matthew Bain

A broad network of Generational Grasslands (aka “stronghold”) partners are providing additional staff capacity for outreach and technical assistance, incentive payments for voluntary conservation practices, social science to identify barriers to practice adoption, and funding for conservation easements. Instead of a shotgun approach, these resources are being focused in core areas that include foundational properties with long-term commitments to conservation.

A Southern High Plains Grassland Project Manager and Specialist (hosted by The Nature Conservancy) have been hired in the Chalk Bluffs Generational Grassland pilot area in Western Kansas, and another Specialist (hosted by the Kansas Grazing Lands Coalition) is being hired in the Red Hills Generational Grassland pilot area in Kansas and Oklahoma. These staff will conduct a scalable gap analysis and strengthen ongoing producer-based conservation efforts (USDA, Pheasants Forever, Kansas Department of Wildlife and Parks, Oklahoma Department of Wildlife Conservation, Partners for Fish and Wildlife).

Additional incentive payments to producers (Habitat Agreements), social science and outreach (led by Kansas State University and Playa Lakes Joint Venture), and a producer advisory committee (led by NAGP) are well underway.

In addition to the two pilots, three additional Generational Grassland landscapes are being developed, and at least five others have been identified. Priorities include woody invasion and additional Conservation Reserve Program (CRP) incentives and options for transitioning cropland and CRP to grazing land.

In addition to funding provided by Generational Grassland partners, an additional \$11.8 million is being provided by the National Fish and Wildlife Foundation (NFWF), Walmart Foundation, Kansas Ringneck Classic, and recently, an NRCS Regional Conservation Partnership Program. Partners are also testing innovative funding sources through ecosystem services, such as carbon, biodiversity, and beef supply.

If successful, these efforts will create a collaborative model that can be transferred to other communities, helping secure large blocks of resilient Southern High Plains grasslands for future generations of producers and wildlife.

Teddy Roosevelt Conservation Partnership (TRCP) - Grasslands

Andrew Earl

In keeping with its mission to guarantee every American quality places to hunt and fish, the Theodore Roosevelt Conservation Partnership—celebrating the twentieth anniversary of its founding—continues to work alongside the NAGP and other partners to champion grassland conservation through partner and landowner-led voluntary programs.

The July introduction of the North American Grasslands Conservation Act, which has the potential to revolutionize the planning and funding of grassland conservation at a continental scale, was the culmination of two years of policy work among conservation partners, land managers, and federal decision makers. The TRCP helped to craft this bill and rally hunter support it from the initial stages of its development and continues to pursue bipartisan input as lawmakers consider the legislation.

Recently, the TRCP and its partners initiated the drafting of a Sportsmen’s Platform for Conservation in the 2023 Farm Bill. Our organizations are working to address capacity constraints, help oversubscribed programs meet landowner demand, and ensure that qualified professionals

remain available to craft effective conservation plans. We are also working with lawmakers to make practical changes to programs to better meet the needs of farmers and ranchers without sacrificing habitat quality.

On public lands, the TRCP is working to promote science-based grazing management, wise energy infrastructure siting, and land management priorities that support quality wildlife habitat. With most of our largest remaining grassland and shrubland blocks found on public land, this engagement is a key factor in broader grassland habitat management.

North America’s grasslands face threats too expansive and multifaceted for one single organization to face on its own, which makes coalition-building groups like NAGP and the TRCP more important than ever. We at the TRCP look forward to working together to meet the challenge.

Sharp-tails Plus (STP)

Ambroise Percheron



The Sharp-tails Plus Foundation is a non-profit organization, led by a volunteer group of gamebird hunting enthusiasts and recreationists, which formed because of a collective and deep concern about the loss and degradation of sharp-tailed grouse habitat in Manitoba, Canada.

For the first time in 2022, the Foundation was successful in receiving funding from the Fish and Wildlife Enhancement Fund for a grouse habitat management project. The Fund is supported with dedicated revenues from every hunting and trapping licence sold in the province.

The Interlake Region, where this project is located, is in a transitional zone between areas of boreal forest to the north and the aspen parkland of the southwest. It is a mosaic of trembling aspen/oak groves and small patches of rough fescue grasslands. The suppression of natural prairie fires, agricultural land conversion, and human development has transformed over 80% of the habitat in the region. Over the years, the vegetation growth and encroachment by woody species have significantly reduced the amount of heterogeneous habitat suitable for leks. Many historical leks have been abandoned and the remaining active leks now look like islands surrounded by dense and expansive forest.

The project will focus on the mechanical removal of the excessive vegetation on selected active and historical, abandoned leks located in Wildlife Management Areas that are directly impacted by ongoing and uncontrolled brush, oak, and aspen growth. The main sites have been selected and planning is already under way for 2023, which will be a promising and exciting year for the Foundation.



Joint Venture 8 (JV8) Central Grassland Conservation Initiative

Graeme Patterson

The JV8 Central Grasslands Conservation Initiative is a partnership of eight Migratory Bird Joint Ventures that cover the Central Grasslands of North America, from Canada to Mexico. The Initiative's objective is to conserve grasslands, and in so doing to support important bird populations, pollinators, working lands, opportunities for hunting and recreation, and key ecosystem services (particularly soil, water, and carbon).

JV8 is emerging from the impact of COVID-19's travel restrictions. We participated in the Central Grasslands Roadmap Summit in May 2022, and in November of 2022 our Coordination team will meet to focus on pressing challenges and opportunities. A key discussion is slated about growth, and how to deliver even more grassland conservation on the ground.

In the last year we also developed a JV8 communications strategy -- a landscape Synopsis that provides both an overview of JV8 and highlights the current eight Joint Venture approaches to delivering grassland conservation. We also initiated a partnership - the Central Grasslands Avian Modelling Project (CGAMP) - with Bird Conservancy of the Rockies, Environment and Climate Change Canada and WWF. This project will produce high resolution maps of the relationship between key grassland bird species and habitat and will assist with focusing our collective efforts on the most important grasslands for conservation.

All of this and more is included (or will soon be included for work in progress!) on the JV8 website (www.jv8.org) We are always looking for partners. Contact your Joint Venture Coordinator or the JV8 Conservation Director for more information (graeme.patterson@jv8.org).

Central Grasslands Roadmap: A Collaborative Strategy for a Working Lands Biome

William Bevil



In May, the first in-person **Central Grasslands Roadmap: A Collaborative Strategy for a Working Lands Biome** summit meeting was held at Colorado State University in Fort Collins, CO. Over 200 people were in attendance representing seven distinct sectors, three countries (Mexico, Canada and the U.S.) and Sovereign Tribal Lands. Accomplishments were celebrated, including the formal launch of the Roadmap in 2021, commitments were made, and new targets were set.

The summit program was designed to meaningfully engage participants, encourage interaction, increase trust and collaborative will, and build shared understanding through story circles, roundtable conversations, and diverse opportunities for networking and dialogue to propel

the collective work forward. The result was a powerful and extensive collection of material which was themed, studied and synthesized in the weeks following the Summit.

Delegates spent time in workgroup and visioning sessions, outlining key metrics and objectives. Examples include targeted communications and outreach in relation to grasslands, support for policy and legislative initiatives that benefit grasslands, increased social and biological science and research, and building meaningful partnerships with Indigenous Communities and across borders. Sectors, nations and Tribal Leaders elevated their voices, priorities and commitments for moving grassland conservation forward.

Over the next three years, the Roadmap community will continue to work together to deliver programs and work on the ground, track progress, and report on results. Partners identified a Grassland Coordinator as a foundational need for building on the energy and momentum from the summit. Funding and partnership building are in development to bring this position to fruition. For more information about the Roadmap, the community of partners, ways to get involved – as well as a full summary report from the summit – visit www.grasslandsroadmap.org.

Minnesota Prairie-Chicken Society (MPCS)

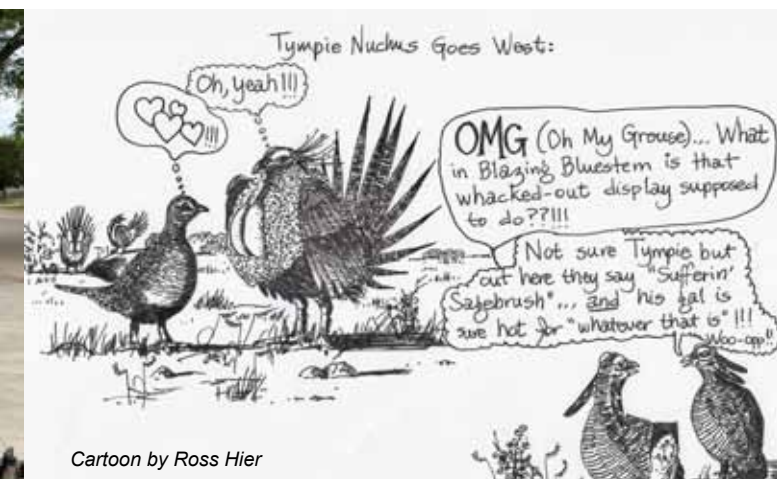
Brian Winter

The Minnesota Prairie-Chicken Society (MPCS) will be celebrating 50 years of conservation success in the spring of 2023. This small organization fledged back in 1974. MPCS will hold their 50th Anniversary celebration at Rothsay, Minnesota which is the Prairie-Chicken Capital!

The prairie-chicken is the Rothsay town mascot. The community has both a large prairie-chicken located at the wayside rest on interstate I-94, and a traveling chicken (Little Boomer). Little Boomer travels across the region to highlight the Rothsay community and prairie-chickens!

In 2021 MPCS helped Rothsay update the plumage on Little Boomer! The prairie-chicken celebration will be on April 22, 2023 at the Rothsay events center. As this event is finalized, you can find more details at www.prairiechickens.org or find us on Facebook.

MPCS has been working for eight years on Prairie-Chicken Habitat Protection in partnership with Pheasants Forever (PF) and the Outdoor Heritage Council across the Minnesota prairie chicken range in northwest Minnesota. Over that timeframe, MPCS has protected 14 tracts of land, totaling 3,832.2 acres of secured prairie-chicken habitat and land open to public access. In July, MPCS received \$4.44 million in funding for Phase VIII of the partnership, our largest allocation to date. In total the Partnership has received \$18 million for prairie-chicken habitat. With rising land prices this past year, we have struggled a little to acquire new tracts. However, MPCS recently secured a verbal agreement on a 160-acre parcel in Mahnom County and are in the process of appraising three additional tracts of land in the prairie-chicken range. This has been a wonderful partnership for MPCS, PF and those of us that love the Minnesota greater prairie-chickens!



Cartoon by Ross Hier

A Look at Past Successes and Present Day Challenges in the Northwest Sands

Trevor Bellrichard

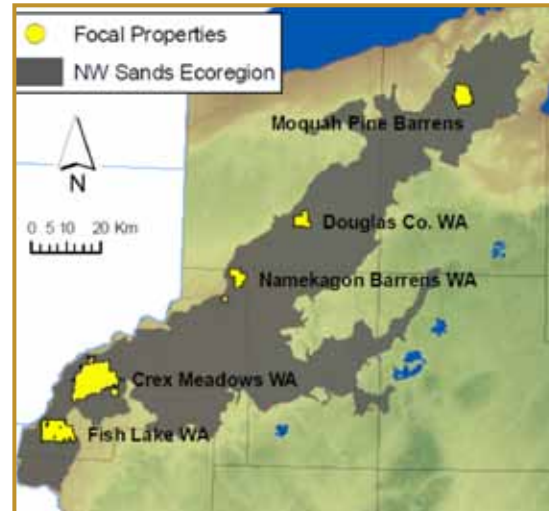


Photo by Trevor Bellrichard

As the glaciers retreated from Wisconsin, 2.5 million years ago, the melting Laurentide Ice Sheet created an enormous body of water in the Lake Superior basin, called Lake Duluth. The Northwest Sands of Wisconsin lie within the spillway of that ancient lake, flooding when the lake overflowed its established shores. As a result, the bedrock in the region is now under between 100 and 600 feet of sand, depending on the area.

Sand provides poor growing conditions for most plants. High drainage combined with low nutrient content lead to a droughty soil state, pervasive in the region. These same factors promote a fire-prone landscape, creating conditions on which species in the Northwest Sands have evolved to depend. Frequent fires and poor growing conditions created the open landscape of low vegetation that sharp-tailed grouse now call home.

This landscape is prone to fires. Historically, fires would race across much of northern Wisconsin on a regular basis. These fires were both natural and human in origin, as the Native Americans of the area used fire as a hunting and farming strategy. In fact, it's likely that this area of Wisconsin burned every five to ten years. As Europeans settled the area, fire was controlled and eventually halted. Pine forest now dominates much of the northern quarter



of the state as a result of fire prevention, reducing barrens landscapes to a fraction of their original size.

It was on this landscape that the Wisconsin Sharp-tailed Grouse Society was born. Thirty-two years ago, when WSGS was founded, the state of sharp-tailed grouse and their habitat in our state was very different. A statewide survey completed in 1991 counted 629 males dancing on leks across nine state-managed properties. While the area of pine barrens was well below historic levels even then, they were more common than today.

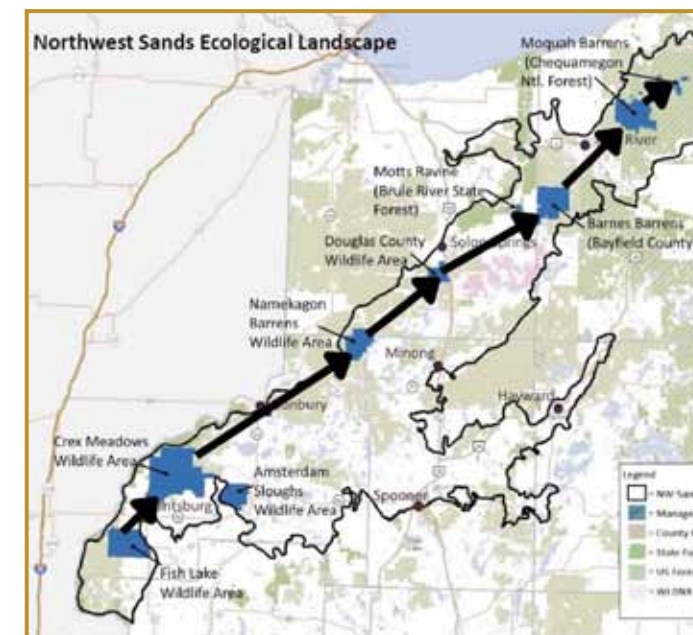
Since its founding, WSGS has scored some big wins for sharp-tailed grouse in Wisconsin. Recognizing the need for increased acreage to effectively manage for barrens species, WSGS has been the catalyst for several property expansions. Most notably, members negotiated a deal with Burnett County to bring an additional 834 acres under the management of the Crex Meadows Wildlife Area. Additionally, WSGS encouraged local buyers to

join other donors to purchase of 1,478 acres of land, dramatically increasing the Namekagon Barrens.

Looking to the future, WSGS sees the Rolling Barrens Concept as one of the primary ways to keep healthy pine barrens on Wisconsin's landscape. The idea marries barrens management with working forests through timber harvest. By strategically cutting and replanting jack pine and red pine stands, foresters create barrens while still generating income for the landowners. As regrowth occurs, habitat is provided for a multitude of species, with forest at many different stages in the same general area. Timber harvest continues according to an established, decades-long plan, ensuring significant tracts of barrens are available at any given time.

The Wisconsin Department of Natural Resources' habitat corridor model has been one of the key concepts of sharp-tailed grouse management for WSGS since its founding. Maintaining high-quality open barrens and brush prairie on state, county, and Forest Service lands requires a landscape-level approach to be successful. Habitat fragmentation has relegated barrens species to a series of largely unconnected subpopulations. These subpopulations are surviving on properties that are likely too small and isolated to maintain the long-term viability of their characteristic species.

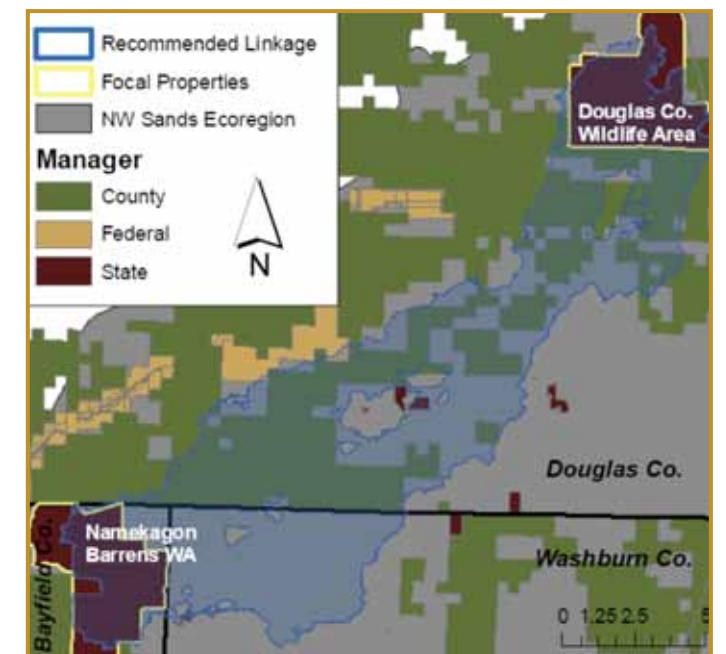
For sharp-tailed grouse and all other barrens species to succeed, these globally important properties must be connected. Linking these parcels not only requires current habitat to be of the highest possible quality; for the long-term well-being of barrens wildlife, there must also be stopover properties of 1,280 acres minimum, allowing traveling species to rest or reside short-term. Using the rolling barrens concept as well as the habitat corridor model, WSGS believes there are good opportunities to fill in the gaps



and provide a richer habitat matrix for traveling open barrens species, including sharp-tailed grouse.

Connecting the Namekagon Barrens and the Douglas County Wildlife Area represents one of the greatest chances for connectivity and success within the Northwest Sands. These two properties are close together, within flying distance for sharp-tailed grouse. Additionally, a large percentage of land between the two reserves is county-owned, providing future opportunity for habitat creation, once a travel route has been established. Finally, the population of sharp-tails on the Namekagon Barrens is strong and healthy, making it ideal for dispersal. Using the rolling barrens approach on county-owned land could provide a winning solution for all stakeholders, bird and human alike.

As habitat specialists, sharp-tailed grouse face a number of significant challenges on the road to recovery. Additionally, barrens landscapes are maintenance intensive, requiring large amounts of human intervention to remain healthy and functioning. Together, these factors create a complex situation, one that takes a multi-faceted approach to control. Prairie grouse species require large, contiguous blocks of suitable land to truly thrive. Modern wildfire suppression and large tracts of long-rotation, monotypic pine plantations have created a situation where many early-succession forest species have declined. However, with member support, WSGS believes the future for sharp-tailed grouse could be looking up. As our small group begins to pick up steam and bring new parties to the table for conservation, people are becoming increasingly aware of our dynamic bird and landscape. Together with Wisconsin residents and people from around the country, we can give the sharp-tailed grouse a fighting chance in Wisconsin and preserve the sights and sounds of our state's open barrens and brush prairies.



GRILLED POLISHES, VOLUNTEER GRIT, AND A PLAN

Tools of the Minnesota Sharp-tailed Grouse Society

Jodie Provost

The Great Lakes region breeds grassroot grouse groups like no other to conserve their local prairie and shrubland grouse populations. These small and mighty organizations, grown out of necessity to battle natural succession and habitat conversion, have worked steadfastly for decades. They include the Minnesota Sharp-tailed Grouse Society (MSGS), Minnesota Prairie-Chicken Society, Wisconsin Sharp-tailed Grouse Society, Michigan Sharp-tailed Grouse Association, former Society of Tympanuchus Cupido Pinnatus in Wisconsin and even Sharptails Plus in Manitoba.

As one of the first of these organizations to hatch (1986), MSGS created momentum for the others. This group of over 250 members uses all tools at its disposal to get the job of saving wide-open spaces and “firebird” populations done. These tools range from harvested wild game to fuel gritty volunteers, to grants of Outdoor Heritage Funds to fuel habitat projects, to a state-wide management plan to fuel communication and collaboration on conservation strategies with partners. MSGS tools have benefited tens of thousands of grassland and shrubland habitat acres and a breadth of people over the last four decades.

Here’s one beautiful, recent project site example and recipe for tool use. First, gather 19 volunteers composed of local natural resource college students, boy scouts, retired folks, hunters, birders and more on a wildlife management area (WMA) in east-central Minnesota in late March when the ground is frozen and snow depths reasonable. Then provide hand saws and loppers to cut shrubs and trees on 40 acres. Grill them 40 snow goose polishes to eat with sides and pans of bars. Enjoy plenty of fellowship over lunch. Connect with the youth, our future, to not only feed their bellies but their curiosity and desire to know they can make a difference. Add in a major award, the “Golden Saw Traveling Trophy,” given to the college bringing the most members. Tally volunteer hours, multiply them by their value per hour, and use that \$4,000 as in-kind support for the required 10-percent match for a Conservation Partners Legacy Grant. Finally, use that \$40,000 of grant funds to enhance up to an additional 1,000 acres of shrubland habitat on nearby WMAs. This Volunteer Brush Cut Habitat Day has been repeated 33 times since 1993 with the number of volunteers on a site reaching into the forties several times, and once even into the sixties. Score!

A statewide example of tool use is the “2022-2032 Minnesota Sharp-tailed Grouse Management Plan — Saving Wide Open Spaces for the Firebird” by MSGS. Volunteers, members and partners are the organization’s greatest resources. Without the people, nothing happens. Their expertise and time have enabled MSGS to develop a strong plan and will enable its application. It will serve as a communication tool with strategies to guide MSGS and all organizations and individuals that want to help sharp-tailed grouse habitats, populations, and outreach, especially within identified core habitat areas and corridors. Development of a statewide plan was low priority for the Minnesota Department of Natural Resources due to lack of capacity and other pressing issues, so MSGS stepped up to the plate. MSGS believes the plan is essential to sustaining viable and thriving sharp-tailed grouse populations and the other multiple benefits their healthy habitats and populations bring. These benefits are so broad that 28 partner organizations, ranging from the Joint Monarch Venture to the Rocky Mountain Elk Foundation and Backcountry Hunters and Anglers to Minnesota Grazing Lands Conservation Association, have endorsed and support the plan. Score more! 🐔

For more information about MSGS and how to get involved, see their website at sharptails.org and Facebook, or contact jodie.provost@yahoo.com.



Photo by Ann Geisen

North American Grouse Partnership's Conservation Strategy for Lesser Prairie-Chickens

Jonathan Haufler and Ted Koch, North American Grouse Partnership

Lesser prairie-chickens (LEPC) are one of the best indicators of the health of Southern Great Plains prairie ecosystems, which, like many other grassland ecosystems, represent some of the greatest conservation needs in North America. The North American Grouse Partnership (NAGP) has advocated for LEPC to be flagship species for needed prairie conservation actions as they are a charismatic species whose conservation will provide habitat for many other species of conservation concern.

NAGP completed an assessment of the status and needs of LEPC in 2017 (<http://www.grousepartners.org/lpc-assessment>). That assessment identified five overall needs to increase the likelihood of successful LEPC conservation:

1. Increased funding for LEPC conservation from numerous sources
2. Strategic application of LEPC actions to focus limited resources (conservation triage and targeting) through a delineated system of finer scale core conservation areas
3. Better coordination among all conservation actors and actions
4. Increased transparency for public conservation
5. Consistent application of science and management, with rapid incorporation of new information.”

NAGP has been actively working to put these recommendations into place as quickly as possible, which has led to NAGP identifying a LEPC conservation strategy. This strategy isn't designed to address all aspects of LEPC conservation but to find ways to most effectively improve habitat conditions and begin to reverse declining populations of the species. With over 90 percent of LEPC habitat occurring on private lands, effective conservation must be able to actively engage landowners using voluntary incentives, while minimizing potential regulatory concerns. NAGP recently assisted with the formation of the LEPC Landowner Alliance that consists of a diverse group of landowners interested in finding ways to improve conditions for LEPC while maintaining productive and economically viable working lands. NAGP's conservation strategy relies on input from this group to ensure that recommended actions are realistic and feasible to landowners.

Increasing funding for LEPC conservation is essential to accomplish enough conservation actions in key locations to produce positive results. NAGP has identified various potential sources for increased funding, including more targeted funding through Farm Bill programs; increased funding through the

USFWS Partners Program; support from state wildlife agencies, foundations, and conservation organizations; and a more effective mitigation program. NAGP has engaged in discussions with program administrators to identify ways to deliver increased funding to LEPC conservation. While adjustments of existing programs can help deliver increases in funding, these changes are unlikely to produce the exponential increase in funding that is needed for long-term LEPC conservation. NAGP is working on developing the support and mechanisms to provide the long-term expansion of funding that is needed to properly conserve Southern Great Plains prairie ecosystems.

NAGP is working on strategic delivery of LEPC actions. Consistent with other prairie grouse conservation recommendations (see article on greater prairie-chicken and sharp-tailed grouse conservation plan) NAGP's conservation strategy calls for establishment of a system of targeted areas with a goal of having each location contain at least 50,000 acres of high-quality habitat. The strategy calls for available LEPC conservation funding to be focused on these areas where payments to landowners can be set at rates that make enrollment in LEPC conservation economically appealing. Initial numbers and locations of strategically located LEPC conservation areas are somewhat flexible, but our analyses have found a number of high-priority areas (Figure 1). Several initiatives have tried to identify potential “strongholds” for LEPC, and, while some differences in locations occur based on the methodology used, there is a high degree of agreement among methods in the locations of the highest priority areas (Figure 1). NAGP advocates an initial goal of establishing ten such areas as quickly as possible. Figure 2 shows how various potential partners have already secured properties for conservation purposes. Establishing ten such LEPC conservation areas would provide 500,000 acres of priority habitat where funding and technical support could be concentrated — a realistic goal for short-term actions to produce meaningful results for this imperiled species and its supporting ecosystems.

Coordination and collaboration among federal and state agencies, foundations, conservation organizations, landowner groups, individual landowners and the energy industry to assist in providing technical assistance and funding for establishment of the LEPC conservation areas are needed. There is shared interest in providing LEPC conservation, but many current actions and activities remain disjointed and conducted independently

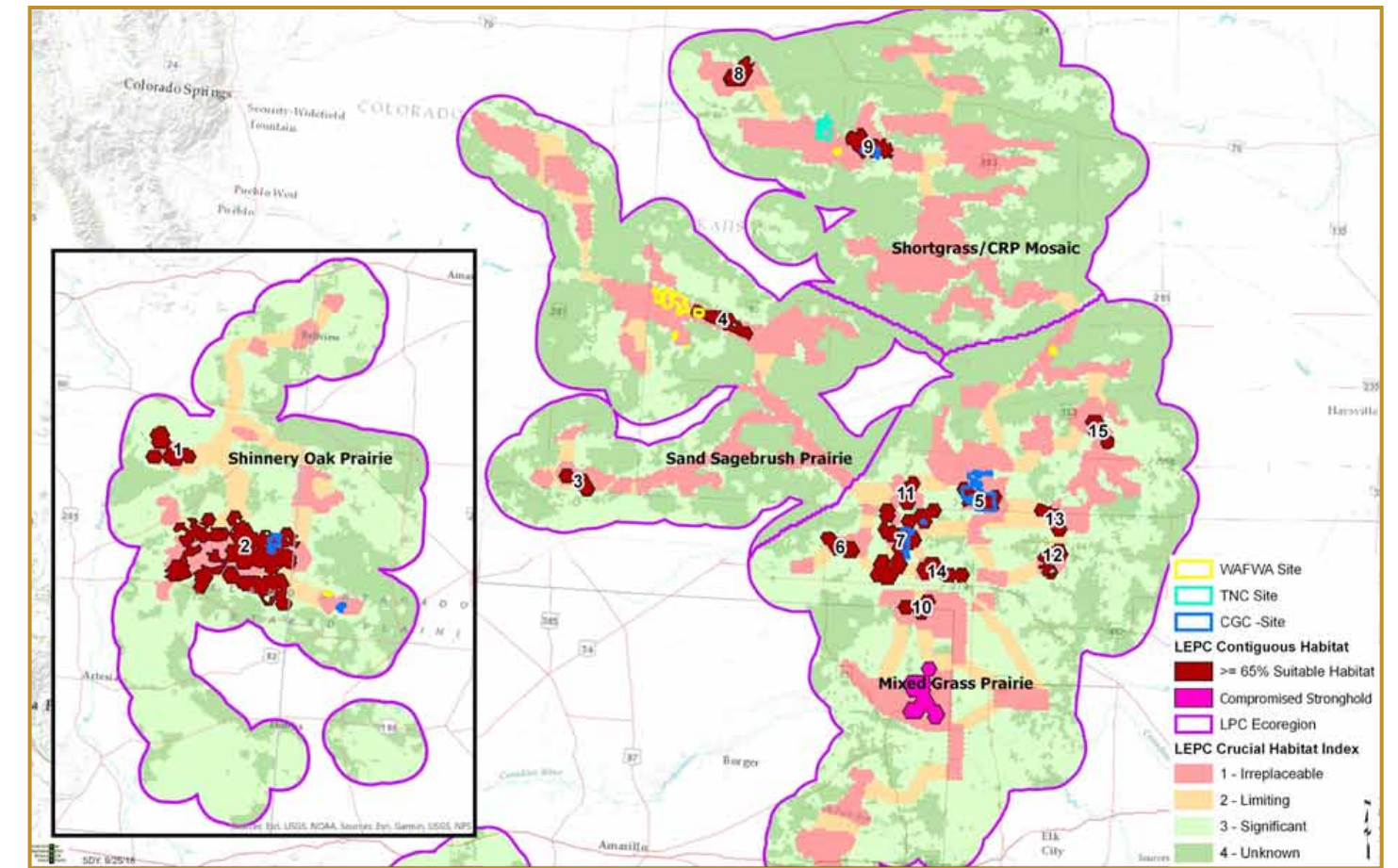


Figure 1. Example of potential locations of initial LEPC conservation areas for targeted conservation delivery.

resulting in “random acts of conservation” that, although well intended, don't produce the desired outcomes in terms of functional prairie ecosystems. NAGP, working with federal and state agencies, our LEPC Landowner Alliance, our Prairie Grouse Partners network, conservation bankers and others is developing the mechanisms to provide increased coordination and collaboration. For example, NAGP has been an important partner in the Southern High Plains Generation Grassland effort, which has secured millions of dollars to establish pilot LEPC conservation areas in Kansas and Oklahoma.

Within targeted LEPC conservation areas, NAGP's strategy calls for providing increased technical assistance, stacking of programs to increase available landowner payments, mitigation measures that would make energy and development impacts undesirable, and effective monitoring efforts. As in the case of Generational Grassland pilot areas in Kansas and Oklahoma, available funding for LEPC conservation could start with a foundation from Farm Bill programs designed to provide targeted support with maximum payments in LEPC conservation areas for prescribed grazing and burning practices, conservation security program incentives, CRP and potential new applications of such programs. To this would be added additional funds from the USFWS Partners program, state agency programs, foundation, corporate, and conservation organization funding,

and eventually additional support through a mitigation framework including conservation bankers. New approaches that would allow for various funding sources to augment each other in specific locations need to be developed to maximize landowner engagement in key locations. Exact formulae for funding delivery need to be flexible to address specific needs within each conservation area. Funding should be diversified to recognize the associated environmental services that will be gained including enhanced biodiversity, water quality, and carbon sequestration.

Each LEPC conservation area should be managed with the following objectives:

- a. Each area of at least 50,000 acres is managed to provide long-term commitments for ≥80 percent high-quality LEPC habitat;
 - i. Each landowner/producer uses a management plan specifying desired habitat conditions.
 - ii. Plan includes grazing, burning, tree and brush removal and control, restoration, allowable alterations and other criteria.
 - iii. Plan includes sufficient requirements so that the conservation area will meet acceptable standards to be included in potential future LEPC recovery goals.

- iv. Monitoring of implementation success and adaptive management considerations are identified in the management plan.
- b. Ensure inclusion and engagement of all potential conservation programs and maximize ways for each to complement each other.
- c. Mitigation measures are in place to minimize detrimental impacts from energy and other developments.
- d. Agreements are in place that provide assurances for landowners that they may continue compatible activities into the future while providing long-term enhancements for LEPC and prairie ecosystem conditions.

conservation programs and actions. NAGP has initiated dialogue among agencies, organizations and landowners who share in desiring successful LEPC conservation. NAGP will continue to help facilitate such coordination and communications, and seeks to expand engagement with additional partners.

What is clear to NAGP is that current programs and conservation efforts, while well intended, are not adequate for conserving LEPC and Southern Great Plains prairie ecosystems. NAGP's conservation strategy strives to address the critical need for immediate actions that will start to reverse the declines in LEPC and other grassland-associated species. Through coordinated and cooperative efforts that recognize the need of landowners to be provided with the economic income and assurances they require while also providing for high-quality LEPC in strategic locations, substantial progress can be achieved.

NAGP's longer-term LEPC conservation outlook recognizes that full recovery of LEPC populations to desired levels will require substantial increases in funding, additional protection in key areas from development impacts and effective monitoring programs. Our initial strategy is a means to "gather low hanging fruit" while making substantial contributions towards LEPC recovery. Working together to begin an effective conservation program centered on an initial 500,000-acre goal will be a tremendous start on needed long-term conservation during which other more contentious policy and management issues can be discussed and resolved. NAGP will continue to actively advocate for the needs of LEPC while working cooperatively with all partners to find mutually supportable solutions to complex conservation challenges.

Implementation of this conservation strategy represents a starting place for returning LEPC to desired population levels. While long-term conservation will require more than 500,000 acres of LEPC habitat in a more extensive and linked system of conservation areas, this strategy would provide for the establishment of an initial system of high-quality LEPC conservation areas for population stabilization and growth. Through increased coordination and cooperation, especially with participating landowner support, the ability to expand conservation to broader areas across the four LEPC ecoregions and five states will be greatly enhanced. In addition, the conservation areas established under this strategy can be integrated with other prairie conservation initiatives and grassland recovery efforts.

In its 2017 assessment of the status of LEPC, NAGP recommended that LEPC conservation would be greatly enhanced through improved cooperative efforts, including increased communications and transparency in regard to LEPC

State of the Birds Status of the Greater Sage-Grouse

San Stiver

I spent a significant part of my preparation to draft this article on the Kaibab Plateau hunting deer. Given the history of the Kaibab in wildlife management, there may be no better place in North America to consider the status of wildlife, wildlife management and the analysis of wildlife data. My analysis of the "state of sage-grouse" is framed both from a contemporary historical perspective and from the recent monitoring and analysis frame.

In 1981, as a biologist in Nevada, I developed my first assessment of sage-grouse. That document titled the "Biennial Sage-grouse Questionnaire," was written for the Sage and Columbian Sharp-tailed Grouse Technical Committee. I have not looked at it since 1981; however, the reporting parameters include three types of data, including lek counts, harvest data and summer brood surveys. The datasets were collected from the late 1940s for lek data, the 1950s for brood surveys and from 1964 for the upland game harvest survey. These were robust data-collection procedures for the day; however, they were woefully short for predicting the actual status of sage-grouse. The state of the art and science have vastly improved in the intervening 40 years.

The Western Association of Fish and Wildlife Agencies as well as the BLM, USFS, USFWS and USGS developed a conservation strategy for Greater sage-grouse in 2006. A major tenet of the strategy was to develop and formalize systematic monitoring programs for habitat and birds. Habitat metrics included threats, disturbances, conservation efforts, and condition and trends in rangelands. Bird metrics included the development of population estimate techniques to estimate both numbers and trends. The strategy provided no funding to complete the work to monitor biological parameters; however, states, federal agencies, universities and NGOs all stepped up and developed monitoring tools that provide us with the data and analysis techniques to determine the status of sage-grouse, and their habitat as well as the associated trends over time.

Personally, from my vantage point, the "state of sage-grouse" in 2022 has moved from serious to critical since the 2015 "not-warranted" finding. The primary signal for this assessment is the continued decline of sage-grouse numbers. The long-term trend in numbers, measured using the nadirs of the population cycle, has maintained a consistent downward trajectory. The results of the USGS analysis (Coates et al. 2021) showed an 80.7-percent rangewide decline from 1966 to 2019, a 65.2-percent decline

from 1986 to 2019, and a 37.0-percent decline from 2002 to 2019. There were some bright spots, namely western Wyoming in the near term, and for some populations at local scales. The critical status of sage-grouse flies in the face of unprecedented conservation efforts for the past 15 years and particularly the past seven years.

What other factors are responsible for this assessment? The sage-grouse conservation partnership is completing a range-wide conservation assessment. This report draws information from the BLM habitat monitoring report, the Forest Service with a like report, National Interagency Fire Center, Natural Resources Conservation Service – Sage-Grouse Initiative conservation reports, USFWS/USGS/WAFWA sage-grouse population report and the multiagency Conservation Efforts Database. These data sources along with analysis accompanying Sagebrush Conservation Strategy provide the basis for a robust conservation model and a monitoring program which allows more accurate predictions.

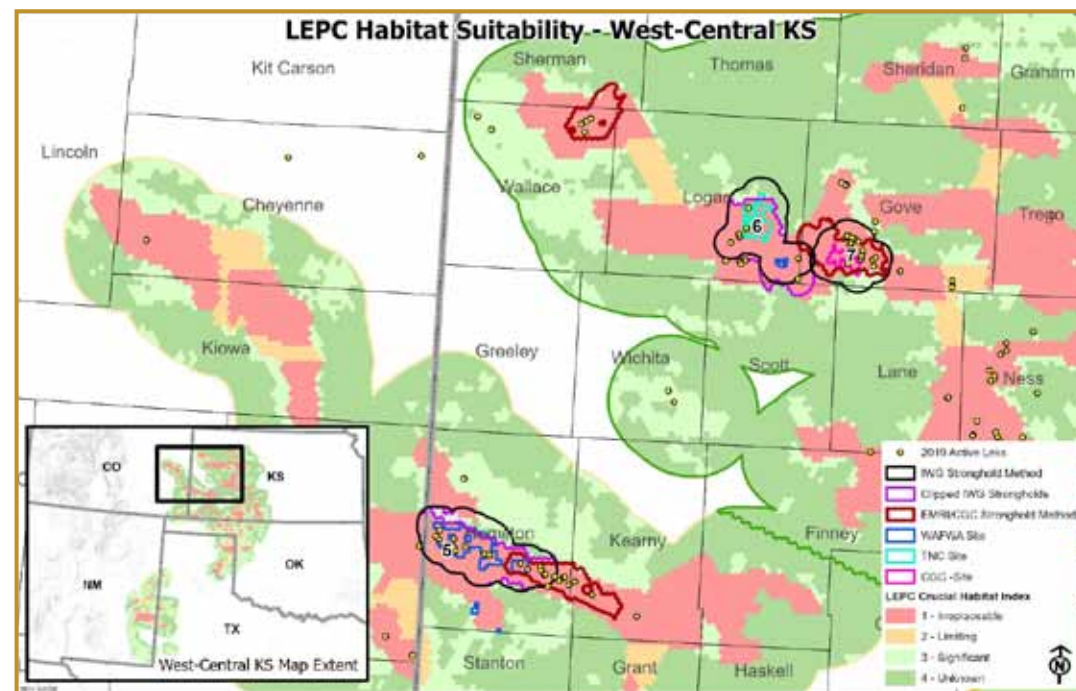


Figure 2. Locations of several possible LEPC conservation areas including existing conservation holdings.



Photo by San Stiver

On the positive side of the conservation ledger, we have an amazing amount of conservation taking place in the West. This rush of conservation actions began in 2000 as sage-grouse technical folks raised concerns about sage-grouse populations. In 2010, the NRCS under Chief Dave White began the SageGrouse Initiative. SGI directed significant efforts toward the conservation of sage-grouse. These efforts occur primarily on privately owned lands and focused on ameliorating threats, developing grazing plans, purchasing easements and other practices to improve sage-grouse populations and habitats. In 2015, after the “not-warranted” finding the BLM directed significant funding toward sage-grouse and sagebrush conservation efforts. As part of the BLM efforts, adherence to the land use plans adopted in 2015 managed anthropogenic impacts on their lands. The U.S. Forest Service controls less than 8 percent of sage-grouse habitat but includes some of the most mesic areas which are more important than the land mass would indicate. The USFS, like the BLM boosted its conservation efforts and implemented its land use plans. The BLM implemented an adaptive management component to its management strategy. Habitat and population triggers are identified to address concerning trends. These triggers, once tripped, begin more restrictive protections for the habitat or populations. These triggers and an analysis of contributing factors are developed by federal and state agency biologists. Both agencies focused significant efforts on sage-grouse. Each sage-grouse state completed sage-grouse conservation plans and have followed those plans since at least 2015. Sage-grouse hunting seasons have been shortened or closed and bag limits reduced across the range. Mitigation programs are available across much of the range of sage-grouse through either federal or state programs. The BLM reported it authorized 36 compensatory mitigation projects in seven states. The USFS reported it engaged in 165 mitigation projects in 13 national forests.

Conservation efforts are logged in the Conservation Efforts Database. Contributing agencies, landowners, stakeholders or NGOs reported over 5,139 conservation efforts between 2015 and 2019. These efforts were categorized broadly as sagebrush protection, with over 500 projects, conifer removal (1,143 efforts) and Habitat Restoration (3,496 projects). The efforts acted upon over one million acres classified as protected; conifer removal occurred on 1,167,000 acres and 860,000 acres were restored. It is difficult to determine the effectiveness of conservation efforts in sagebrush restoration projects because of the time lag for the vegetation response; however, conifer removal and easements are easier to evaluate effectiveness.

On the debit side of the conservation equation, we have significant problems. The BLM “Range-wide Monitoring Report for 2015-2020” reported on sagebrush availability and range-wide vegetative condition. Sagebrush availability was determined by geospatial analysis of ecological systems supporting sagebrush vegetation communities adjusted for

threats across land ownership in priority (PHMA) and important habitat management areas (IMHA). Analysis at the range-wide scale showed that PHMA and IHMA declined about three percent for the five-year period. The acreage of loss totaled 1.9 million acres rangewide with 1.4 million acres lost in the Great Basin. The breakdown of sagebrush losses in the Great Basin follows: 87 percent from wildfire, 12 percent from impervious surfaces and one percent from agricultural conversion. Losses in the Rocky Mountain region follow: 34 percent from wildfire, 27 percent impervious surfaces, and 38 percent from agricultural conversion.

Vegetative conditions were assessed on series of important sage-grouse habitat indicators, including percent sagebrush cover, mean sagebrush height, proportion of sagebrush in a spreading configuration percent cover of perennial grasses and perennial forbs and finally mean herbaceous plant species height. Degradation variables included the proportion of sagebrush in columnar shape, percent bare ground, proportion of nonnative invasive species present, proportion where ≥ 25 percent of foliar cover comprises nonnative invasive species, proportion of vegetation composed of annual grasses and proportion of vegetation composed of nonnative invasive plant species. The important vegetative components appear to be static on BLM rangelands. Degradation variables, including invasive species and annual grasses, increased. The average bare ground metric decreased, but it is unknown if that was an artifact of the increasing annual grasses and invasives. Invasive weeds, namely cheatgrass and medusahead, continue their march across the landscape.

The USFWS, USGS, BLM, NRCS, USFS and WAFWA have continued to develop science tools which focused on management applications to problems identified by the conservation partners. These products are implemented as soon as practical. Additional tools help us better understand system reactions to the various stressors in the ecosystem.



Photo by Photos.com

Seven years into the post “not-warranted” finding, I would conclude that the conservation community has done an outstanding job implementing conservation efforts. On-the-ground practitioners have employed current science into the design of projects and the execution of those projects. The land use plans have worked in controlling anthropogenic disturbance, reacting to habitat or bird population changes through adaptive management triggers. SGI has been highly successful in maintaining landowner engagement on their private lands with a variety of conservation actions.

Natural processes have not been kind to sagebrush and sage-grouse. The primary stressor is habitat type conversion from wildfires. Large catastrophic wildfires are directly the result of annual invasive grasses. Cheatgrass, the primary invader, is continuing to move across the landscape. The invasive weed-to-fire cycle is well known, and we have not been successful addressing it. Once a cheatgrass/sagebrush area burns, its fire frequency dramatically increases and sagebrush loses its battle. Restoration of burned areas is expensive and usually not successful.

Analysis of trends in rangelands provides me with several points. Quality or core sagebrush habitats are declining. Recent analysis techniques indicate that we are losing more than a million acres a year to fire and degradation. This loss rate has been consistent for decades. We have between 25 million and 35 million acres of quality habitat remaining. Assuming a consistent loss rate, we will only have remnant patches of sagebrush in the next 20 years! As a landscape-scale species, sage-grouse will follow as a remnant.

There are some bright spots in this picture. First, we have a huge conservation community already deployed. Second, sage-grouse populations have maintained their numbers in quality habitat, while numbers have declined in poorer habitat. We need to identify the quality habitats and protect them. We need to improve habitats that can still be improved. As the nation moves toward an electric world, we will have considerable demands on the sagebrush ecosystem, namely, wind, solar and rare earth elements. It will be a challenge to balance those needs.

If sage-grouse were a patient I would suggest they are in critical condition. Treatment has been aggressive but has not changed the trajectory of the patient. There is still time to reverse the trends, but the window for action is closing fast, VERY FAST. We need to evaluate our treatments and where we are applying those treatments, then prioritize the treatment. 🐔



Photo by Brandon Barry

Conservation Strategy for the Greater Prairie-Chicken and Plains and Prairie Sharp-tailed Grouse

Jon Haufler

The Interstate Working Groups (IWG) for greater prairie-chicken (GPC) and plains and prairie subspecies of sharp-tailed grouse (STG) have been meeting for the past six years to develop action plans for conservation of these two species. Both species are considered excellent flagship species for conservation of tallgrass and northern mixed-grass prairies as well as shrublands in the Great Lakes region. The IWG have included 14 states, the USFWS, the North American Grouse Partnership and the Ecosystem Management Research Institute. They recently completed a report that describes the current status of the conservation strategy for each species (Houts, M. E., J. Haufler, K. Fricke, W. Van Pelt. 2022. Conservation Strategy for the Greater Prairie-Chicken and the Plains and Prairie Subspecies of Sharp-tailed Grouse. KBS report 209). The report is available on the NAGP website (<https://www.grousepartners.org/grpc-stgr-conservation-strategy>).

The IWG have compiled available data on both species, including:

- Habitat requirements and life-history information,
- Population sizes and distributions,
- Lek survey information,
- Survey methods used by each state,
- Additional species that will benefit from conservation actions for the two species,
- New estimated occupied range of both species that also extends into Canada, and
- Linkages with state wildlife action plans.

A new estimated occupied range map was produced (Figure 1) based on lek survey information, reported ebird locations and professional assessment by the state biologists. This range map will be useful in helping locate and direct areas for species management actions.

A significant Geographical Information System (GIS) analysis was conducted that developed a conservation planning tool to identify key areas for conservation. The tool included data on percentages of grasslands in areas of varying size, amounts of cropland, lands impacted by developments, extent of invasion by trees and potential risks of grassland conversion or loss from conversions, energy developments or tree encroachment. This tool was used to identify areas with the best potentials for habitat management. Eastern states have already identified the primary locations where conservation actions for the two species should

occur because of their limited distributions. States farther west where larger populations still occur can use the tool to help identify areas that would benefit from establishing high-quality habitat.

One of the significant recommendations in the report was the recognition of the need for a more strategic approach to conservation. The IWG recommended that available conservation funding should be directed towards strategically located priority areas. Establishing core areas consisting of 50,000-acre blocks of high-quality habitat distributed across the range of each species was deemed essential to assure long-term populations of each species. Some of the states identified the locations where these core areas occur, while other states left the specific locations open, but recognized the need to be more strategic in applying limited conservation funding. This agreement on the need for more strategic delivery of conservation actions and the multi-state assessment of potential locations of priority areas is an important advancement in the conservation of both species.

Information compiled on species of greatest conservation need (SGCN) associated with similar habitat requirements of the two

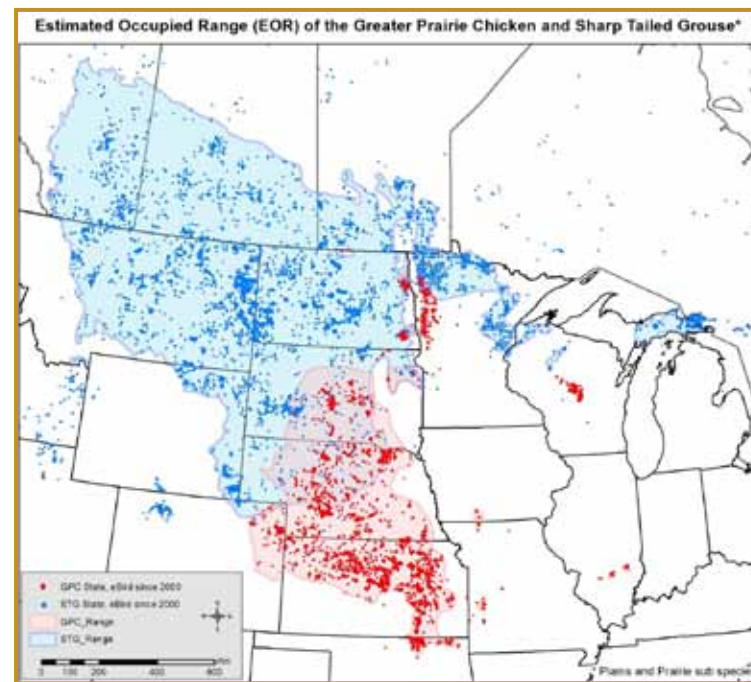


Figure 1. Estimated occupied range of greater prairie-chicken and plains and prairie sub-species of sharp-tailed grouse using lek survey information and reported ebird locations.

species confirmed the importance of their use as flagship species. The results showed that there was a total of 113 different SGCN species identified across the states that shared habitat with GPC/STG, with 10 of those species being mammals, 27 bird species, 13 reptiles, 8 amphibians, and 55 insect species.

The GIS analyses of existing habitat conditions was limited in its ability to characterize actual habitat quality at local levels as the composition and structure of grasslands cannot be effectively measured remotely. However, the analyses did allow for assessments of which areas had large blocks of grasslands with lower levels of croplands, developments, tree invasions and other factors. These analyses clearly showed the importance of the Sandhills of Nebraska as an area that still contains high levels of unfragmented grasslands with high potential of supporting high-quality habitat. Figure 2 displays areas identified with good potential for habitat management.

The report recognized that new conservation actions, additional funding, and better coordination and delivery of programs were all important factors for the future of both species. It stated: “State wildlife agencies should identify areas where they can begin to build 50,000-acre blocks of high-quality habitat for GPC and STG. Identification of such areas should be done in consultation with other partners including USDA (NRCS and FSA), USFWS Partners Program, non-profit organizations working within the state, foundations that can provide additional funding, Joint Ventures, Grassland Coalitions, Stockgrowers Associations, and/or others. Energy industry will be an important player as well to avoid future impacts and potentially to assist through mitigation processes.”

The report also noted: “Within the strategic locations identified as priority areas for grassland conservation, the desired conservation outcomes must become the dominant priority. Wildlife and other important grass and shrub ecosystem services cannot be a secondary priority to other economic drivers. This means that landowners must be provided with sufficient incentives and assurances so that they understand and support the primacy of the conservation objectives. This will require a careful melding of on-going land uses with constraints on those uses where potentially competing uses would undermine the conservation objectives. For example, incentives must be sufficient so that ranching operations within a strategic location, when faced with drought conditions, would not need to depend on an opening up of CRP lands to haying.”

The report concluded with: “This Conservation Plan for GPC and STG represents a starting point for a coordinated effort to use these two species as flagships for broader grassland and shrubland conservation. As evidenced in this plan, uncertainties remain regarding the effective implementation of conservation actions. Therefore, it is important that this plan be viewed as a work in progress and open to updates and revision as new

data, research, and opportunities are identified. While some recommendations may appear daunting under current funding and resource availability, the status quo is not working. The continued declines of GPC and STG are clear harbingers of the broader decline of functional grassland and shrubland ecosystems. Given the increasing challenges of competing economic uses and climate change impacts, new and substantially increased efforts will be needed to stem continuing declines.”

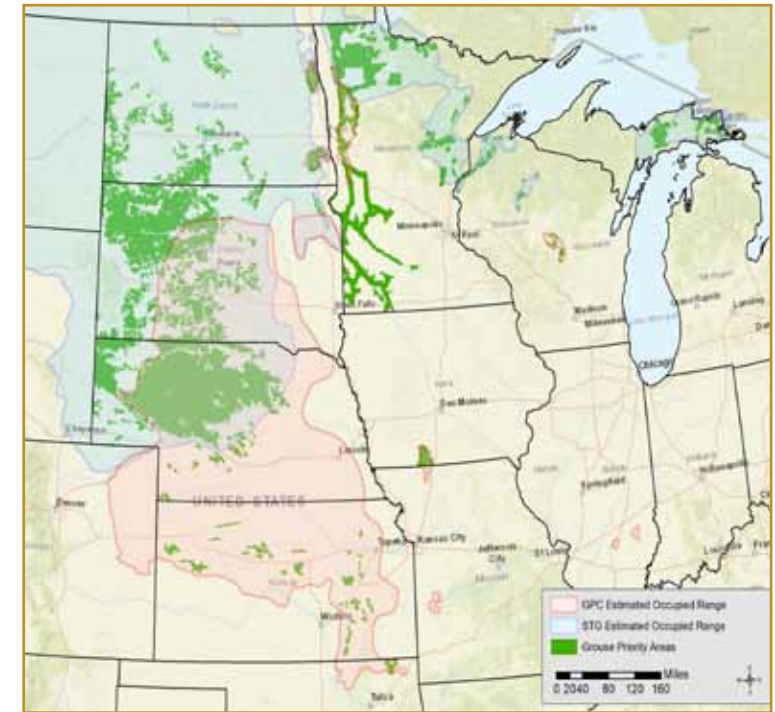


Figure 2. Map showing locations of high priority potential habitat areas for greater prairie-chicken and sharp-tailed grouse.



Photo by Marissa Jensen

NORTH AMERICAN GRASSLANDS ACT

Andrew Wilkins

One of the first things people might notice when visiting one of the southeastern Piedmont's remaining intact grasslands ecosystems is the smell, particularly in late spring: sweet smells of grass carried on the breeze with woody notes released underfoot as you disturb the soil and older growth. The blend of native milkweed, grasses, aster, primrose and other wildflowers found in these grasslands creates both a visual and olfactory bouquet that not only provides a show for our senses but a dynamic home for wildlife, both resident and migratory. In turn, we Southerners are drawn to the meadows, grasslands and prairies which provide unique landscapes to hike, hunt, birdwatch and otherwise commune with nature. My father regaled me with stories of abundant coveys of quail in North Carolina's own Piedmont and how he and his friends would get the jump on them for a fun day of hunting and a good meal. He also noted the steady decrease in numbers, then eventual disappearance of these areas as they lost habitat due to development.

As is the case with grasslands across the United States, the continued encroachment of human development and the instability brought by climate change threatens the few

remaining remnant grasslands in the Southeast, irreversibly imperiling native flora and fauna. The loss of roughly 90-percent of our remnant grasslands has led to a sharp decline in species such as quail, which, according to the Southeastern Grasslands Initiative, will see their population cut in half by 2030. Quail, along with other grassland species, will then begin to experience extinction by 2050. This degradation threatens the stability of the very things we disrupted these habitats for, leading to more dramatic impacts of climate change on our communities and decreasing the productivity of agriculture from home gardens to large farms.

The decline of grasslands nationwide follows a similar trend, with millions of acres of grasslands irretrievably lost and with it the habitat of unique plants and wildlife, including sage-grouse and prairie grouse. Conservation organizations such as the North American Grouse Partnership (NAGP) are doing valiant work to conserve both these species and the habitats they rely on. The solution to this problem will require not just advocacy by NAGP and my own organization, the National Wildlife Federation; the key to success lies in partnerships with private landowners, local

communities, tribal leadership and coalitions, and state natural resources divisions. In turn, this will require federal funding and support, which is finally moving forward after legislation was introduced to support and guide these critical conservation partnerships.

This summer, senators Ron Wyden of Oregon and Michael Bennet of Colorado introduced the North American Grasslands Conservation Act, which will provide resources to farmers, ranchers and tribes to voluntarily take steps to prevent the loss of grasslands and, when possible, restore them. This bill will create a voluntary, incentive-based grant program that focuses on partnering with private landowners – the stewards of their lands and waters – to conserve and restore grasslands across the country. The availability of grants is designed to be flexible, as the needs of one landowner to conserve grasslands will vary greatly across the nation. Restoration of degraded grasslands, mitigating the threats of wildfire and drought, restoring watersheds and improving the health of rangelands are among the many eligible activities for such grants.

One of the most unique aspects of this legislation isn't that unique at all – modeled after the highly successful North American Wetlands Conservation Act (NAWCA), the grasslands act will have both national and regional councils to oversee and approve restoration projects. NAWCA helped reverse decades of decline in wetlands habitat and, in turn, the wildlife that depends on them. Since its enactment, almost 3,000 NAWCA projects have been completed, leading to an estimated 2.98 million acres of habitat conserved across North America. Central to its success

was the creation of a network of councils to help manage progress and distribute grants. Much like NAWCA, the legislation will create grassland conservation councils to empower the people and communities on the ground to make decisions about the restoration needs for a given landscape. This means that these councils will have representatives from the farming, ranching and grazing communities as well as representatives from state, tribal and federal agencies. By centering the people who live, work and recreate on North America's grasslands, we ensure that solutions to slow and reverse their decline will be effective and durable.

The passage of this act will improve not just habitat for wildlife but will slow, and ultimately help reverse, the decline of our nation's grasslands. The many organizations and individuals working to provide more tools to restore our grasslands are each driven by our own visions and memories of these unique landscapes. For me, I hope to explore vibrant, restored southeastern grasslands with friends and family – perhaps chasing restored and abundant coveys of quail.

To join us in this work, please visit www.actforgrasslands.org. 



Photo by Matt Vincent

The Farm Bill and Prairie Grouse: Making it What We Need

Steven P. Riley

The Farm Bill is a massive piece of legislation that provides services and funding for everything from food and nutrition to conservation and forestry programs, and so much more. The American people pay for these things with high hopes that children won't go hungry and that our forests, prairies, farm and ranch lands and waters are all healthy and sustainable. We want durable and stable soils, clean air and water, abundant wildlife, and thriving rural communities that perpetually provide wholesome food and fiber for us all. Well, the bill doesn't do all that, but it does attempt to leverage these things so that they do happen. Hopefully we are getting better at it with each new iteration that happens about every five years. For prairie grouse, we need it to be better now.

All the money in the Farm Bill attracts a lot of attention. Some of that attention is driven by folks who either want a hefty share for themselves or who understand that how the money is spent will affect their company's profitability. There is a lot of ideological noise, too, as lawmakers strive to find a manageable balance to move the legislation through the process. Perhaps surprisingly, though, this piece of legislation usually ends up being one of the more bipartisan bills Congress debates. No one likes the whole thing, but virtually everyone benefits from the bill's passage.

For now, though, I will focus on the Conservation Title of the Farm Bill and how it impacts birds, specifically prairie grouse. The first of two programs that have had the largest impact on prairie grouse have been the Farm Service Agency's Conservation Reserve Program (CRP), which you likely know something about. The second is the Natural Resource Conservation Service's Environmental Quality Incentives Program (EQIP), which you might only know about if you are a farmer. Both are massive programs that impact lots of land and land management decisions. Both have elements that can maintain, manage and restore grasslands in ways that can be very beneficial to prairie grouse.

The CRP program consists of a large suite of conservation practices. These "tailored" approaches to conservation focus the capabilities of CRP on specific local needs that I won't try to list here. One of the more important conservation practices, though, for prairie grouse is known as Conservation Practice-38 or SAFE (State Acres for Wildlife). It is designed to foster collaboration between USDA staff and wildlife professionals in

each state. SAFE can and is used to target important wildlife habitat conservation needs. For prairie grouse several such state partnerships exist that have been designed to help producers convert marginal cropland back to a mixture (some better than others) of prairie plants native to that particular prairie grouse species' range. The landowner gets an annual cash rental payment for the duration of the contract, which is normally ten to-15 years. Win!

EQIP is a very complex system of conservation planning and implementation built systematically to improve various soil, water, plants, animals and other resources. I say "complex" because it tries to accommodate all of the various conditions and needs throughout the United States. Obviously, conservation problems and solutions that work in the arid West will likely be different than those in the cornfields of the Midwest or the forests of the Southeast. It is complex enough for this one vital program to try to do it all. Well not quite all, but you get the idea. It's very intricate. It can be flexible too, though.



Photo by Marissa Jensen

One example of the program's flexible potential that is relevant to prairie grouse is an important offshoot known as "Working Lands for Wildlife" (WLFW). WLFW was created by a former chief of the NRCS to address the conservation needs of certain key declining wildlife species in an attempt to keep them off of the official list of endangered species. Through WLFW EQIP funds are locally targeted along with some resources to help partners scale up conservation delivery staff (usually wildlife biologists or range scientists) who work one-on-one with ranchers and farmers to help marshal program resources where the need exists and where they can make a difference.

The funds available to the rancher or farmer are further targeted to certain conservation practices designed to aid the target species. For greater sage-grouse, for instance, a lot of effort and resources have gone into removing juniper trees that have spread across much of the bird's range making the sage steppe system look more like a forest than a prairie to the grouse. At a certain point, the invasion of junipers will push sage-grouse out and reproduction essentially stops in that area.

So, we remove the trees and the sage-grouse return. But that's an oversimplification of all that goes on with WLFW. It may also cover grazing planning and potentially efforts to remove or reduce invasive annual grasses. Often limited water supplies and poor water distribution mean livestock are forced to graze more heavily in some parts of a pasture than others. Sometimes, this has contributed to the spread of junipers and invasive annual grasses. So, we may need to add wells and pipes and tanks to better distribute livestock. We may also need to divide pastures to allow for more control of livestock movements and the pressure they can place on plants in any given area. This also opens the door to the possibility of a full annual rest of a pasture from time to time to let the roots grow, allow the desirable plants to become more dominant, and to sequester a bit more carbon from the atmosphere. There's a lot that goes into good grazing plan and it can be costly. Plans are often a challenge for the rancher to implement and it is a much larger problem to stick with it.

As we in the U.S. embark soon upon building another version of the Farm Bill, NAGP would really like your help. Heck, the grouse really need your help. Join us in fostering grass- and bird-friendly changes to the bill. Going forward, NAGP will be producing a Farm Bill Platform that will be used to influence decision-makers. We will also be asking you to contact your members of Congress to encourage them to support the adoption of some new ideas — along with tweaking some old ones — in order to see our prairies and farms become more hospitable for grouse and more sustainable for ranchers and farmers. They are the ones who have to make the changes and face the costs associated with doing so on our behalf. 🐔

Our Problem to Fix

Preventing species from being listed under the Endangered Species Act means life is a lot easier and less stressful for everyone involved. From landowners and land managers to state and federal employees to politicians, having a species decline to the level that requires it to be listed is bad. It's obviously awful for the species, too, and it normally means that the whole local ecosystem is struggling in important ways. It's a mistake to blame the species or the agencies or the courts or even the landowners. The problem was likely created by policies the people supported, paid for, and benefitted from (like having good and cheap food on our tables pretty much all the time). So, if you accept my point that it is our problem to fix, you can also likely see why we have these programs in the Farm Bill to help US fix them.



Photo by Marissa Jensen

WHY PHEASANT RELEASES BY MONTANA AND WILDLIFE AGENCIES ARE A BAD IDEA

Chris Madson

Down on the pheasant farm

In the spring of 2021, the Montana legislature, in its infinite wisdom, added a section to the end of a bill that was generally intended to clean up some details of the laws administered by the state's Department of Fish, Wildlife and Parks. The terse wording appropriated \$1,000,000 for "the purchase of pheasants to be released on state lands." With that, the state of Montana was in the game farm business in a big way — with all the complications that entails.

The environmental assessment prepared by Fish, Wildlife and Parks justified the new program as an effort "to engage youth in the sport of hunting, promote hunter success, and provide additional hunting opportunities for hunters of all ages." The plan calls for inmates at the Montana State Prison to produce up to 50,000 pheasants a year — at about \$20 a bird — to be released on about 1.6 million acres of "suitable and eligible state-owned lands" — a little more than half a pheasant per acre.

If these birds are released on the day hunters will take the field in top-flight holding cover as they generally are on a real shooting preserve, research suggests that less than half of them will end up in the bag. A survey in southern England collected information on the fate of pheasants released for driven shoots on some of the biggest estates in the country and found that 38 percent of the birds were killed by hunters, 36 percent were taken by predators and only 16 percent survived until the end of the hunting season. If Montana's experience is comparable, the cost of a prison-reared pheasant in the hunter's bag will probably be between \$40 and \$60.

Some pheasant lovers have argued that releasing pheasants could bolster breeding populations in the wild. After all, they argue, pheasants were originally established in America by releasing birds, nearly all of them pen-reared, but a closer look at the history of pheasants in America shows that in most parts of the bird's modern range, it took 20 years of stocking or more to establish self-sustaining populations. Many introduction efforts went on much longer and never achieved success.

And the American landscape in which pheasants got a foothold a century ago was a world apart from the modern farmscape. Even with the support of massive subsidy programs from today's Farm Bill, populations of pheasants, as well as nearly all our native game birds, have been in decline. The wild pheasants that remain are the product of 100 generations of selection and adaptation to the real world. They have the benefit of being raised by a wild hen with a survivor's understanding of where to find food and cover through the year, as well as how to avoid predators. If the wild birds can't find a way to sustain themselves, it's hard to believe that a sprinkling of their pen-reared cousins will do any better. On one shooting preserve in Wisconsin in the early 1960s at the height of the Soil Bank program when pheasant cover in the area was particularly good, six percent of the released birds survived from the hunting season to the following spring.

Of course, Montana is by no means the first state to succumb to the siren song of stocking pheasants for the sole purpose of augmenting harvest. The state of Wyoming's bird farms were established in 1938, first, to establish wild populations of pheasants, chukars, and gray partridge and, later, to stock pheasants "before the gun," as the jargon goes. These days, the annual Wyoming bird farm budget runs around \$700,000 a year. In 2020, sale of pheasant stamps and a share of Pittman-Robertson funding brought in \$135,000 for the program. So pheasant releases cost the department— which is to say, license buyers— about \$565,000 a year. The hatcheries raised around 36,000 pheasants in 2020; even with the pheasant stamp to help defray expenses, each bird costs the department around \$16.

In 2022, the state of Pennsylvania plans to release 237,000 pheasants; Wisconsin raises around 75,000 pheasants for release annually; Massachusetts releases around 40,000; Washington,

35,000-40,000; Ohio, 14,000; New Hampshire, 10,000. The state wildlife agencies in Illinois, Indiana, Michigan, Maryland, Idaho and Oregon all release pen-reared pheasants.

Some of these programs may pay for themselves; most don't. Some are intended to attract new hunters or retain hunters that might otherwise give up. Most are a simple surrender to politics, a response to demands from a generation of hunters who miss the once stable, harvestable populations of wild pheasants that prospered across much of the northern United States without any need for expensive management programs.

I understand how those folks feel. I've been a pheasant hunter myself for more than 60 years, and I've been fortunate enough to move west as pheasant populations in Illinois, southern Wisconsin, and Iowa have fallen on hard times. Even in the last strongholds— Kansas, Nebraska, South Dakota— pheasant numbers aren't what they once were, and the grand hunting traditions these places supported are fading with the birds.

But, in spite of that hard reality, I'm not a fan of state wildlife managers getting into the game farm business.

There are important practical matters that arise with these programs. On the modern landscape, the risk of spreading disease from confined birds to birds in the wild, while it may seem small, is getting slowly, steadily worse. Montana officials are aware of this risk and have committed themselves to the most aggressive measures to keep diseases out of their breeding facility.

Wyoming Game and Fish has been in the pheasant rearing business for generations, and the technical personnel in its breeding facilities take stringent precautions to avoid disease —



Photo by Chris Madson

still, in 2021, they lost more than 6,000 chicks to a *Salmonella* outbreak and killed another 1,200 breeding adults in the spring of 2022 because they might have had contact with wild turkeys carrying avian influenza.

Diseases spread from domestic poultry were implicated in the extinction of the heath hen, and diseases in captive populations are complicating the ongoing effort to re-establish Attwater's prairie-chickens. The introduction of West Nile virus to the New World is a matter of concern for biologists attempting to maintain remnant populations of greater sage-grouse, and various genotypes of H5N1 avian influenza have been passed back and forth between wild waterfowl and domestic poultry over the last century or more, with increasing frequency and regularity in recent decades. Spreading disease from the pens to the wild in Montana will remain a major concern, assurances from the authorities notwithstanding.

The fiscal realities of using pheasant stocking as a way of recruiting and retaining hunters also concern me. Since revenue from hunting licenses remains a major part of income for most state wildlife agencies, proponents of the recent R3 (recruitment, retention, reactivation) initiatives to maintain numbers of hunters often advocate pheasant releases, arguing that they provide a quick introduction to upland hunting.

That may be. But, if there aren't enough wild pheasants to go around, I wonder how long these new hunters will keep coming back. And, if the cost of a pen-reared bird in a hunter's bag is \$50 or more, how can the program support itself? How many hunters, especially beginners, will buy a resident bird license that costs \$150 or more, the actual cost of a bag limit of roosters? If the ultimate goal of pheasant releases is to maintain or increase income from hunting license sales, the arithmetic doesn't seem to work out.

Then, there are the ethical questions.

I'll leave discussions of the ethics of shooting pen-raised birds to other commentators. I grew up on a shooting preserve, and I think it's fair to say that the pheasant hunting experience there was nearly indistinguishable from the genuine article. The birds were pretty much the same wily, hard-running, quick-thinking, strong-flying survivors as their wild brethren. For the clients, the main difference was that, no matter how well the shooters did, there were always birds for the next party. For a discerning hunter with a broader interest in wildlife, it was almost pornographic, a beguiling illusion with no connection to the land itself.

Setting that issue aside, there are broader ethical issues at play. After a lifetime of defending the discipline of hunting from the attacks of antihunters and animal rights activists, I've long valued one immutable fact: For more than a century, efforts supported



Photo by Chris Madson



Photo by Chris Madson

and funded by hunters to produce game in America have focused on protecting, improving, and rebuilding habitat.

These programs have been attacked as favoring only a handful of species, but it's clear that the extensive tracts of food and cover that have been developed support a huge variety of wild things, game and nongame alike, not only during hunting seasons but over the entire course of the year, through nesting and brood-rearing into the lean months of winter and back to spring. The demand for dense, widely distributed populations of game animals has resulted in landscape-scale management efforts, from the conservation title of the Farm Bill to the nation's system of wildlife refuges and waterfowl production areas and a spectrum of state wildlife areas.

Stocking pheasants before the gun changes the relationship between these areas and many hunters who pursue upland birds. If providing enough year-round habitat to produce a maximum number of wild game birds is no longer absolutely necessary, it's easy to begin thinking of them more as shooting preserves than wild places. About all a shooting preserve needs is dense cover during the fall so that released birds stay where hunters can find them. Wintering cover, nesting cover, brood-rearing cover, year-round sources of food are all unnecessary, and the overall acreage of habitat can be drastically reduced, since hunting success no longer depends on the productivity of a widespread wild population. It's an efficient approach to providing targets for license buyers but far, far less beneficial to wildlife in general.

Montana's Department of Fish, Wildlife and Parks has a long-standing initiative, the Upland Game Bird Enhancement Program, designed, in part, to create and improve habitat for pheasants, gray partridge, forest grouse, sage-grouse, and wild turkeys. In 2020, the department spent \$489,000 to build habitat on 33,000 acres around the state and open 230,000 acres of private land to bird hunters.

How much more habitat could Montana fund with the \$1,000,000 the legislature is spending on pen-reared pheasants? It's hard to say. There may be some upper limit on the number of landholders who are interested in establishing or improving upland habitat, regardless of the financial incentives offered by the state, the federal government, or conservation organizations. However, one thing is certain— spending that money on habitat rather than a game farm would be far better for Montana's wildlife as a whole.

It's worth noting that some circumstances may justify captive breeding of wildlife. For the last 30 years, wildlife managers and conservationists in Texas have struggled to preserve the Attwater's prairie-chicken, the native grouse that once inhabited the prairies along the Texas Gulf coast. As populations of that bird melted away, a few were taken into captivity where, after

years of research, specialists managed to produce young birds for release into the wild. The challenge now is to find places for these new recruits— the native tallgrass that once supported the birds has dwindled to almost nothing, and the remaining remnants are close enough together that they're all vulnerable to a single extreme weather event, like a hurricane.

The captive breeding effort that saved the black-footed ferret from extinction faces similar challenges. Scientists have overcome the daunting challenge of breeding the ferrets in captivity, but the vast prairie dog towns that once supported the ferrets have all but vanished. The question facing ferret conservationists today is where to put them.

Habitat— wildlife conservation always comes down to habitat, which is just another way of saying home. Every species, every living thing needs a home, the combination of year-round food, water, shelter it has evolved to occupy. Without homes, the wild things we care about simply can't survive.

Throughout my life, I've taken pride in the part hunters have played in providing those homes for wildlife, not just the game species we pursue but the hundreds of other species that thrive alongside them. I think it's true that, over the last century, hunters in North America have done more than any other group to preserve wildlife and wild places, not just in a handful of national parks but across the entire continent. Hunters have insisted that wildlife should not only be present on the land but abundant. It is a venerable tradition that has accomplished miracles.

The pressure on state wildlife agencies to provide their license buyers with pen-reared game birds undermines that tradition. It denies the connection between abundant game and healthy land. It diverts badly needed funding from genuine conservation to the production of targets. And it casts doubt on the hunter's commitment to wildlife.

If there is demand for pen-reared pheasants, it should be supplied by shooting preserves in the private sector where the real cost is borne by the customer and the most efficient return on investment is pursued by the proprietor. That will leave state wildlife agencies to pursue their overarching goal— the future of wildlife and wild places, for game and nongame, for hunters and nonhunters alike.



Photo by Chris Madson

New Hope for the Attwater's Prairie-Chicken?

Michael E. Morrow, Steve Sherrod

Attwater's prairie-chicken is the southernmost representative of the grouse subfamily in the world. Populations in the wild have faced extinction for the last three decades despite implementation of incredibly intensive conservation actions including habitat restoration, captive breeding and release, and a lot of research to help identify limiting factors. Of course, like many grouse populations, stochastic weather plays a huge role in driving Attwater's prairie-chicken populations changes. The Attwater's also has to deal with tropical weather systems with the potential of dropping huge amounts of rain – an additional threat that most North American grouse do not face. Additionally, research continues to show that the invasive red imported fire ant (*Solenopsis invicta*) poses one of the biggest threats to re-establishing viable Attwater's populations in the wild. Fire ants cause declines in native invertebrate populations to the point

that not enough remain to support survival of young Attwater's prairie-chicken broods. That is a huge problem because fire ants, which first arrived in Attwater's range in the 1960s and 70s, are now ubiquitous throughout the southeastern United States. While fire ant populations can be managed with products that are safe, effective and, most importantly, target fire ants when used appropriately, treatments generally last only a year or so due to the tremendous potential for recolonization.

However, recent research offers hope that a virus specific to fire ants in their native South American range has found its way to ants in their acquired North American range. This virus, known as SINV-3, packs a particularly potent wallop in fire ant populations. Investigators found a sevenfold decrease in the number of fire ant colonies where SINV-3 was experimentally



Photo by John Magera

Figure 2. Male Attwater's prairie-chicken at the Attwater Prairie Chicken National Wildlife Refuge.

introduced compared to control colonies not containing the virus, and surviving colonies in the virus treatment area also decreased in size (see: <https://www.sciencedirect.com/science/article/abs/pii/S0022201122000520> and <https://www.washingtonpost.com/health/2022/06/17/fire-ant-natural-pesticide/>). More importantly, SINV-3 infections were sustained over time and spread to previously uninfected colonies. This virus represents another in a growing list of natural control agents that have either been intentionally introduced after careful research or have found their way to North American fire ant populations on their own. This increasing list of natural biological controls – vectors that keep red imported fire ants in check in the Attwater's prairie-chicken's native range – inspires renewed hope for the bird.

The Attwater's population in the wild remains small and therefore very vulnerable to the stochastic weather events that have been part of life on Texas coastal prairies for eons. So there will be setbacks ahead. But the Attwater's prairie-chicken is fortunate to have a safety net in the form of robust captive-breeding programs at the Caldwell Zoo (Tyler, Texas); Fossil Rim Wildlife Center (Glen Rose, Texas); the Houston Zoo (Houston, Texas); and the George Miksch Sutton Avian Research Center (Bartlesville, Oklahoma). More resilient wild populations on the landscape will only be established by increasing numbers in the wild and expanding distribution of the birds. Until then, these captive-rearing facilities serve as source stock for replenishing populations that are impacted by catastrophic weather events like hurricane Harvey in 2017. Harvey resulted in approximately 83-percent mortality of radioed birds at the time. Interestingly, Val Lehmann, a pioneer in Attwater's prairie-chicken research, documented a similar decline in wild Attwater's prairie-chicken populations following passage of hurricane Beulah in 1967. The difference in impacts of these two events though is the 79- to 83-percent decline Lehmann observed following Beulah still left ample stock for recolonization whereas the impacts of Harvey on extremely small populations nearly wiped out birds in the wild. But Attwater's population trajectories following repeated setbacks like Harvey show encouraging potential for recovering from these events if given half a chance (Figure 1). Whether populations recover to the point of viability or not remains to be seen. But advancements like SINV-3's apparent impacts to fire ants are certainly good news – and the Attwater's prairie-chicken and those involved in its recovery can use all the good news they can get. 🐔



Photo by Attwater Prairie Chicken National Wildlife Refuge staff

Figure 3. Attwater's prairie-chicken poult being prepared for release at the Attwater Prairie Chicken National Wildlife Refuge.

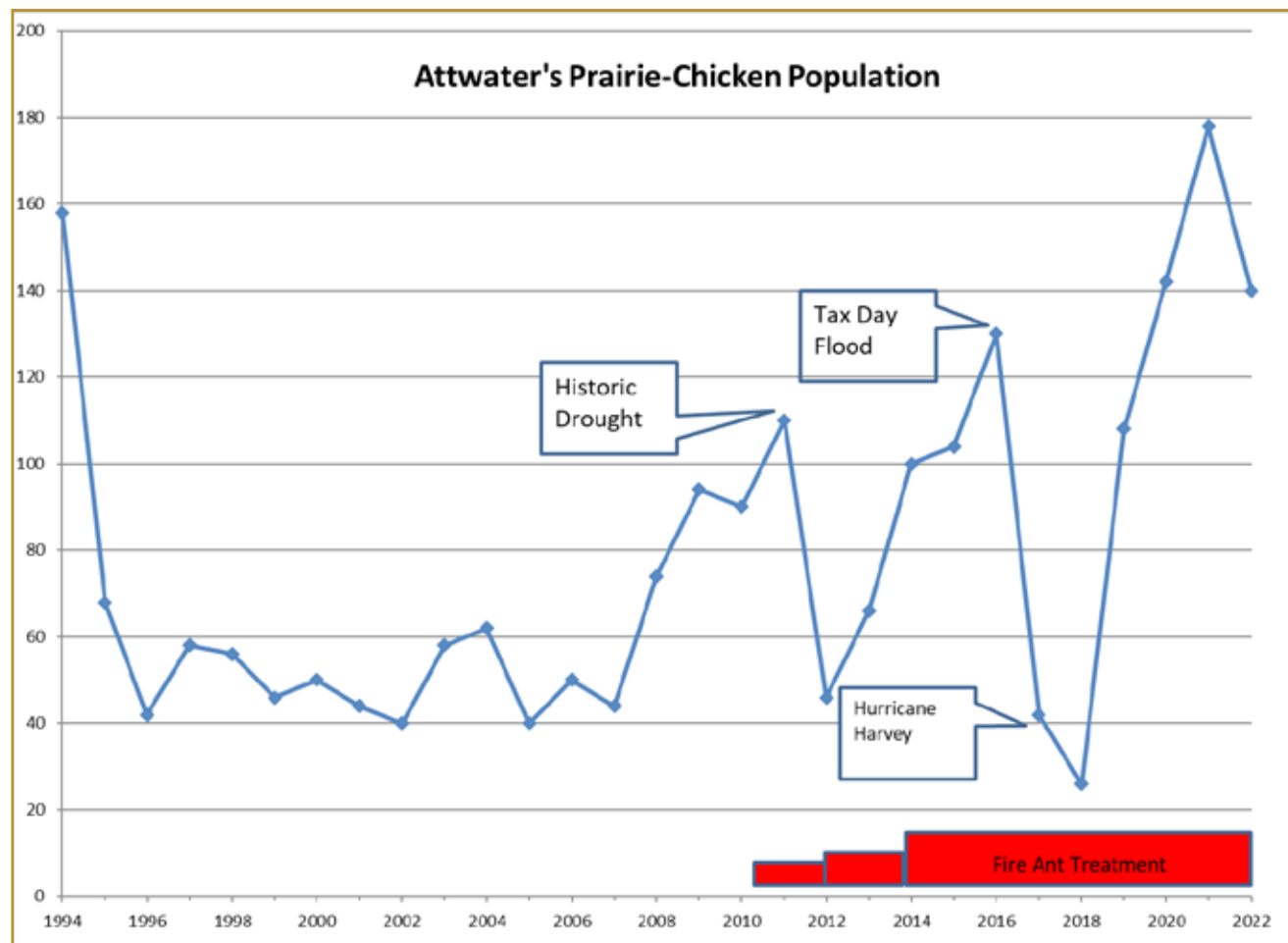


Figure 1. Attwater's prairie-chicken wild population trends from 1994–2022 annotated with major weather events. Also indicated is relative acreage treated to suppress red imported fire ants from 2010–2022.

Landowners Rally for Lesser Prairie-Chickens

Lew Carpenter

It's no secret that successful, landscape-scale habitat conservation requires private landowner engagement. Wildlife – owned in trust by the state – are in many cases reliant on the habitat stewardship of private landowners to thrive.

During a recent speech in Wyoming, Robert Bonnie, Under Secretary for Farm Production and Conservation at the United States Department of Agriculture, emphasized the nature and relationship between farmers, ranchers and land owners to conservation. “We’ve long recognized the importance of working with people to conserve land in a voluntary and incentive-based manner,” he said. “Over the last several decades, we have developed new tools to protect working lands from development and help manage them in ways that benefit wildlife, clean water and the climate – all while ensuring we continue to produce food, fiber and fuel.”

For the lesser prairie-chicken (LPC), his words couldn't ring more true, and a coalition of landowners has come together to save these birds from a staggering population decline that puts them on the edge of endangered status. The Lesser prairie-chicken Landowner Alliance (LPCLA) is a group of a dozen land owners in Kansas, Oklahoma, Colorado, Texas and New Mexico working with federal agencies to find a path forward on LPC recovery.

Stacy Hoeme is one such landowner providing leadership to the group. His ranch in western Kansas north of Scott City has provided opportunities for neighboring Colorado Parks and

Wildlife to capture LPCs and relocate them in Colorado, creating a model for reintroduction that has been largely successful to date.

In 2011 Hoeme discovered he had lessers on his ranch (along with greater prairie-chicken, which is unusual). The birds that were discovered on his ranch, along with birds in 12 other area counties, put a pause on the first recommendations to list LPCs under the Endangered Species Act. Around 2017 a biologist out of Colorado came out looking to capture LPCs and relocate them to Colorado. At that time Stacy had about five leks that he knew of and they went to look at three of them. “One lek we had about 40 birds on that morning,” Hoeme recalled. “I asked him how many he was looking to capture and he said 15 hens and 15 males. The target was to relocate them to the Comanche National Grasslands of Colorado. At that time the biologist said Colorado only had about 23 total birds. It was a three-year project capturing these birds and they did take 30 from the ranch. They ended up capturing about 45 to 50 birds during that three-year period, skipping the second year.”

Following that, Hoeme and a few other landowners (including The Nature Conservancy) opened up their properties for folks to come out and see the birds. In the second year of viewing, people from 39 states and 11 countries visited.

Now, on the cusp of another ESA listing recommendation (“threatened” status in Kansas and Colorado and “endangered” in Texas and New Mexico), the LPCLA has gained steam and



Photo by Stacy Hoeme

influence on what happens next with landowners in the areas of the birds.

“The North American Grouse Partnership (NAGP) sought to form the LPCLA because we knew there were conservation-minded landowners across the five-state range of lesser prairie-chickens, and we thought organizing them to focus their collective energy would be an effective way to influence government agencies to better help conserve prairies and chicken habitat,” said NAGP Executive Director Ted Koch.

So far, the LPCLA has requested help from agencies with several program improvements, primarily including taking a more strategic and focused approach to conserving the most important habitats and paying enough to get the right landowners interested. They are also working to develop private markets for their conservation products that are important to all Americans, including healthy soil and vegetation, clean water and air, and carbon sequestration and wildlife habitat.

“We’ve only had a couple of meetings with USFWS and NRCS,” said Hoeme. “Our last one was a really good one because we had an hour and a half and we were able to put a lot of things on the table, but it’s still really political because they can’t change some of the things we are asking for without going through congress and the Farm Bill.”

The LPCLA would like to find a coordinated manner to address these issues rather than splitting up action between too many agencies. “In the past if you had Farm Service working with you on one thing and Natural Resources Conservation Service (NRCS) working on something else, it was separated,” said Hoeme. “I’d like to see a habitat leasing program where we put things together. Even when we talk about carbon capture — if we could get that on top of everything and help us set up something, maybe we can operate through the NRCS or Farm Service office for all of it.”

Helping other ranchers work better with the variety of agencies involved with habitat improvement and LPC conservation is a

major goal for the LPCLA. And Hoeme clearly notes that a lot of ranchers have never taken federal money; they don't want handouts, but if certain operations are required by the agencies, they want to get paid fairly for it. If they want cattle cut back or certain habitat work done, then yes, they want to be fairly paid for it.

Undersecretary Bonnie seems to understand this notion. “While tried-and-true tools like perpetual conservation easements and payments for specific restoration actions will remain important, we also need to develop new tools, like habitat leases, that give landowners some certainty over a decade or more, while allowing conservation priorities to shift geographically,” he said in his Wyoming speech this past spring. “We want to help develop this new tool: habitat leasing. To meet partners’ desire for long-term management that they can plan their businesses around, we will offer a habitat leasing opportunity built on our Grasslands Conservation Reserve Program. This working-lands version of the popular CRP (Conservation Reserve Program) program provides an annual payment to landowners in exchange for maintaining suitable wildlife habitat and preventing conversion to non-compatible uses for a term of 10 to 15 years. This is a working lands program, so ranchers can keep sustainably grazing those lands.”



Photo by Stacy Hoeme

WE ONLY GET SO MANY OCTOBERS

“It is easy to forget that in the main we die only seven times more slowly than our dogs,” - The Road Home, Jim Harrison

Greg McReynolds

October is finite – not only in volume, but in reoccurrence.

In Idaho, October is the perfect month. The weather cools and the aspens start to drop their golden leaves. Brown trout move upstream to spawn, colored up like the aspens and hungry and edgy and mean. Sharptail seasons line up with other upland species so the whole host of bird hunting is on the menu.

October is a marker for my years and sometimes it’s alarming how fast they tick past. Throwing out a pair of worn-out boots, I

realize it’s been a dozen years since I bought them. Sorting boxes of factory pheasant loads with \$9 price tags, I try to remember when you could buy Golden Pheasant loads for that price.

Fondly remembering a hunt with a good friend, I realize we haven’t spoken in years. I look at my dogs and see I no longer have one in her prime and one on the upswing, but one in her prime and one that may not have another October left in her.

For a good long time, I was certain my springer was faking deaf. As in, “I can’t hear you boss, but there’s birds!”

Turns out she is not faking, at least not anymore. Sometimes I walk past her bed and out the door without her waking. In the evening, I occasionally have to walk out and retrieve her from the yard. She’s healthy and happy, but she has lost most of her drive, and she can’t hear anymore.

She’ll make a few trips this year. Judging by our walks and initial trips out, she will mostly be at heel, strolling along as the old lady of the pack.

Last fall, I took an ill-advised shot at a rooster on the last day of the season. He seemed well hit, but locked his wings and glided across a good-sized channel of the Snake River into some cattails on the far shore. My old girl was never a good water retriever and I never force-fetched her, but as I stood there wondering if my waders were in the truck, she lit out into the cold and fast water. She hit the shore and worked the cattails for several minutes before wading out and swimming back. She held a totally live rooster in her mouth, his head erect as she braved the current again.

I remember thinking, “That could be the last great retrieve I see her make,” because even then she had slowed down. Mostly, the

fire has gone out of her. She still wants to go; she wants to head out the door and ride in the truck, but the barely controlled bird craziness is gone. It’s nice to have her around. She’s mellowed. She can lay down at your feet instead of pacing constantly. She can ride in the car on a gravel road without howling to be let out. She’s just older. It happens to all of them. And to all of us. For me as well there is a day coming where hunting turns into something else.

We only get so many Octobers.

Greg McReynolds lives in Pocatello, Idaho and works for Trout Unlimited. This piece originally appeared on www.mouthfuloffeathers.com, a collective of upland writing. A new print book, Mouthful of Feathers, Upland in America, will be published in the spring of 2023. 🐓



Photo by Lew Carpenter

Without the Plants, the Birds Don't Dance

Sarah Kulpa, USFWS, Alison Agneray, BLM, Kevin Badik, TNC, Sarah Barga, USFS



Sagebrush ecosystems are among the most threatened ecosystems in North America. Greater sage-grouse are sagebrush obligates and are declining due to a loss of habitat. These declines largely reflect alteration or destruction of the native plant communities that provide their essential habitat. This is primarily due to increases in invasive annual grasses and an associated increase in wildfire frequency, intensity and extent.

Restoration actions are often undertaken in response to sagebrush ecosystem degradation. However, the phrase “ecological restoration” can represent many things in the recovery of a degraded, damaged or destroyed ecosystem. Sometimes this phrase is used to represent invasive species treatments; other times ecological restoration may refer to the removal of woody vegetation or even prescribed fire or grazing. Success is often categorized by the number of acres treated rather than by the long-term outcomes of restoration treatments. By mainly measuring success as acres treated, we forget about the preliminary work needed to address the foundational element of ecological restoration – native plants and their seeds.

Native plant materials (including plugs or nursery-grown plants, wild collected seed, agriculturally produced seeds and seed in the soil seed bank) provide the building blocks for restoring healthy ecosystems that can withstand stressors like drought, fire and invasive species. Without the appropriate native plants and their well-adapted seeds, we do not have the ability to restore fully functional ecosystems. For example, greater sage-grouse rely on a variety of native forbs, and the insects associated with them, as an important food source during certain life-stages (e.g., early brooding females and their chicks). Without native forbs as a food source, it would be difficult for these birds to survive traveling the distances between their spring and summer habitat.

There is an unprecedented scale of conservation and restoration currently being called for through initiatives such as the America the Beautiful Challenge and the United Nations Decade on Ecosystem Restoration (2021–2030). Despite these great efforts and influxes of funding, we do not have the necessary native seeds and plant materials readily available to restore ecosystems in the United States. For example, an estimated 74 percent of native plant species needed for restoration in the United States are unavailable commercially. Planning for the appropriate plant materials *must* be part of the ecological restoration process, as restoration practitioners can only use what is available.

Since appropriate native plant materials are often limited in supply or lack the desired range of species diversity, practitioners often fall back on using non-native species, seed mixes lacking biodiversity or native species that are not adapted to climates at restoration sites. As a result, lack of species and genetic diversity increases the risk that, in the short-term, ecosystems lose resilience to the effects of climate change and other disturbances, and in the long-term, ecosystems may not recover at all.

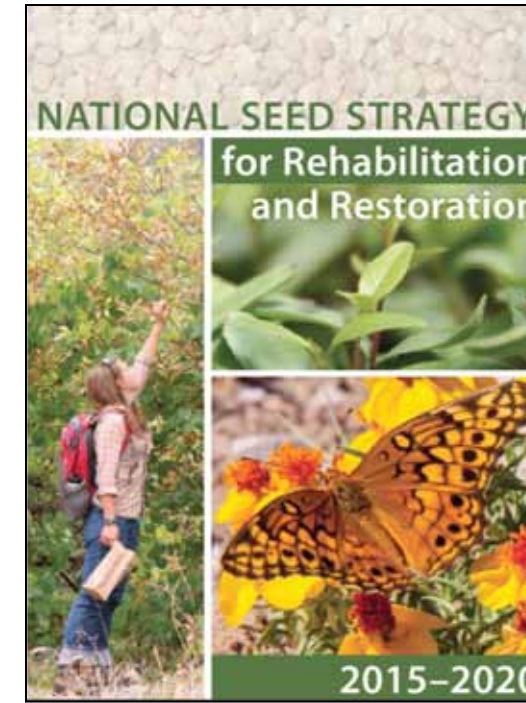
Increasing the use of native plant materials for restoration requires public-private partnerships between seed collectors, researchers, farmers, nurseries, seed storage facilities, restoration ecologists, and land managers as well as a shift from a reactive decision-making process to a proactive process that allows for necessary longer-term planning. The process of sourcing, producing and using native materials for restoration includes many steps that typically need to be addressed years before the physical act of restoration occurs. These include steps like seed collection, evaluation and development, increase and production, certification, procurement and storage.

Native plants are one of our most powerful tools for conserving and restoring healthy and resilient ecosystems for species like the greater sage-grouse. Thus, they should be at the forefront of all ecological restoration efforts. Having the “right” seed (locally adapted or genetically-appropriate) can mean the difference between restoration success and failure. Because remember, without the plants, the birds don't dance.

To learn more about native seed and plant materials for sage-grouse habitat restoration:

Luna, T, M.R. Mousseaux, and R.K. Dumroese. 2018. Common native forbs of the northern Great Basin important for greater sage-grouse. Gen. Tech. Rep. RMRS-GTR-387. Fort Collins, CO: U.S. Department of Agriculture, U.S. Forest Service, Rocky Mountain Research Station; Portland, OR: U.S. Department of Interior, Bureau of Land Management, Oregon-Washington Region. 76 pp.

Gucker, C.L. and N.L. Shaw. 2019. Western forbs: Biology, ecology, and use in restoration - Project Overview and Acknowledgements. Reno, NV: Great Basin Fire Science Exchange; Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. Online: <http://greatbasinfirescience.org/western-forbs-restoration>. 🐾



The National Seed Strategy for Rehabilitation and Restoration was developed by the Plant Conservation Alliance (PCA) to provide a coordinated approach among partners to ensure the availability of appropriate native plant materials.



The Nevada Seed Strategy was developed by the Nevada Native Seed Partnership and is a step-down to the National Seed Strategy that aims to increase the availability and use of native plant materials in Nevada. <https://www.partnersinthesage.com/nevada-native-seed-partnership>

Locally adapted seed and plant materials are those that have adapted to local environmental and climate conditions and will likely have more success establishing and persisting in the conditions to which they are adapted.

Genetically-appropriate seed and plant materials are those that have genetically adapted to a restoration site and are likely to establish, persist, and promote community and ecological relationships. These plants are genetically diverse enough to respond and adapt to changing climates and environmental conditions and unlikely to cause genetic contamination and undermine local adaptation, community interactions, and function of resident native species.



Photo by Sarah Kulpa, U.S. Fish and Wildlife Service

Sagebrush ecosystem forbs lava aster (*Ionactis alpina*) and desert paintbrush (*Castilleja chromosa*).



Photo by Sarah Kulpa, U.S. Fish and Wildlife Service

Cheatgrass (*Bromus tectorum*) surrounding a native bunchgrass.

Big Sky Country Welcomes the 34th Prairie Grouse Technical Council Meeting

Jodie Provost



Photo by Jodie Provost



Over 100 prairie grouse enthusiasts gathered recently in Lewistown, Montana from October 3-6 for the 34th Prairie Grouse Technical Council (PGTC) Meeting. This event has occurred since 1957, generally on a biennial basis other than a COVID-19 pandemic hiccup in 2021. It's return to Montana after 31 years, state of six grouse species, was a grouse's dream.

Much gratitude goes to Montana State University's Wildlife Habitat Ecology Lab and Department of Animal and Range Sciences, Montana Agricultural Experiment Station, and Montana Extension for hosting, and Northern Great Plains Joint Venture, Prairie Pothole Joint Venture, Big Sky Upland Bird Association, American Prairie, Montana State University, and North American Grouse Partnership for sponsoring the meeting. Thank you also to all serving on the planning, award, and scholarship teams, especially PGTC Executive Board Chair Lance McNew.

Thirty-eight oral presentations and seven posters were shared over the course of two days regarding greater sage-grouse, Gunnison sage-grouse, lesser prairie-chicken, greater prairie-chicken, sharp-tailed grouse, and Attwater's prairie-chicken. Topics ranged from the gene to megafire scale, and covered from British Columbia to Texas. Presenters hailed from 13

states and one province. The full program with abstracts can be found on the PGTC "main lek" home web page at prairiegrousecouncil.org.

A highlight was the evening social and poster session at American Prairie's National Discovery Center. Damien Austin, Vice President and Superintendent, shared American Prairie's vision and work. As a freestanding Montana-based nonprofit organization, their main focus is to purchase or protect private lands that glue together a vast mosaic of existing public lands. The goal is to collaboratively manage 3 million acres with state and federal agencies to conserve wildlife and a fully functioning prairie ecosystem, and provide public access. Since 2004, they have completed 34 transactions to build a habitat base of 453,188 acres.

Another highlight was getting our boots on the ground during the day tour. Locations with robust sharp-tailed grouse and greater sage-grouse populations in north-central Montana were visited. Stops included Federal public lands managed by U.S. Fish and Wildlife (Charles M. Russell National Wildlife Refuge) and Bureau of Land Management, and privately owned lands managed by The Nature Conservancy and local rockstar, conservation-oriented landowners, Robert and Dede Griffin.

Speakers discussed habitat attributes, management objectives and strategies, and on-going restoration efforts, along with an Unmanned Aerial System (drone) grouse survey demonstration.

On the evening of the banquet, keynote speaker Andrew McKean, an independent journalist from Montana covering hunting, the outdoors, and natural resources policy, offered up a thought-provoking "View From the Tailgate: Broadening Appeal for Upland Birds." As prairie grousers, we often base our conversations and our work around habitat, but for most of the humans who live in and around grasslands, it's the birds that matter. How we celebrate hunting and upland traditions matters as much to the future of prairie grouse as deep research into habitat dynamics.

The John Toepfer Prairie Grouse Research Scholarship was awarded to Ashley Messier. This scholarship honors John's life and continues his legacy of supporting prairie grouse students. The applicant must be a student actively researching prairie grouse and plan to attend and present their research findings at the upcoming Prairie Grouse Technical Council meeting. Ashley is a Master of Science student at Kansas State University. She presented on the applicability of using the Normalized Difference Vegetation Index, a remotely-sensed plant 'greenness' metric, to identify lesser prairie-chicken nesting and brood-rearing habitat. She also has experience conducting field work on greater sage-grouse in Idaho.

The Hamerstrom Award, established in honor of Fred and Fran Hamerstrom, pioneers of prairie grouse research and management, was presented to Jim Pittman and Jodie Provost. This Award was first given in 1991 and has now been presented to 28 individuals and organizations. Jim was recognized for his instrumental contributions to greater and lesser prairie-chicken research and management in Kansas through his roles and collaboration with the Kansas Department of Wildlife and Parks, USGS Kansas Cooperative Fish and Wildlife Research Unit, and Western Association of Fish and Wildlife Agencies. Jodie was recognized for her significant contributions to sharp-tailed grouse habitat management and outreach over her 30-year career with Minnesota Department of Natural Resources - Section of Wildlife and volunteer work with Minnesota Sharp-tailed Grouse Society.

To stay on the desired schedule of odd years, the 35th Prairie Grouse Technical Council Meeting will be held fall 2025 in Nebraska. We hope to see you there! 🐓



Recovering America's Wildlife Act

Terry Riley



Photo by The Washington Post

Senator Martin Heinrich of New Mexico introduced S.2372 - Recovering America's Wildlife Act of 2022 and testifies at a hearing of the U.S. Senate Environment and Public Works Committee on April 7, 2022.

Fish, terrestrial wildlife and insects are in serious trouble across the planet. State and territorial fish and wildlife agencies, tribal councils, the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) have identified more than 12,000 species that need immediate assistance. More than 1,600 U.S. species already are listed as threatened or endangered under the federal Endangered Species Act and more than 150 U.S. species already have gone extinct. A 2018 report from the National Wildlife Federation, the American Fisheries Society and The Wildlife Society estimated that one-third of all fish and terrestrial wildlife species in the U.S., including up to 40 percent of freshwater fish species, 42 percent of amphibian species, and 18 percent of bat species, are at an increased risk of extinction due to threats such as habitat alteration, invasive species, disease and other problems exacerbated by the impacts of a changing climate.

On a global scale, a recent United Nations report detailed over 1 million species at risk of extinction, with approximately 680 vertebrate species already having gone extinct since the 1500s. Native habitat loss and degradation, climate change, invasive species, disease and severe weather are the primary causes for these declines and extinctions. If these needs are not addressed soon, species extirpations and extinctions will have serious consequences for our nation's economy and to the operations of many of our agricultural producers.

In an effort to address these issues, the U.S. Congress in 2000 began provided funding each year to the states, territories, the



A Project Upland Original Film
RECOVERING AMERICA'S WILDLIFE
Photo by Project Upland

New Mexico Senator Martin Heinrich explains the Senate version of RAWA and why the bill is important for conservation.

District of Columbia (DC) and tribes to prepare wildlife action plans. That funding, although varying from year to year, has continued to the present day. Those wildlife action plans now have been completed and updated at least once and the species with the greatest conservation needs, including threatened and endangered species, have been identified along with their crucial habitats. At least 20 states and a few tribal councils have identified various grouse species needing restoration and conservation. The cost to the American taxpayer to recover all of these species will be high, and time is of the essence.

The Recovering America's Wildlife Act (RAWA) was passed 2021 by the U.S. House of Representatives (H.R.2773), and a companion bill has been introduced in the U.S. Senate (S. 2372). These bills, if passed by the Congress and signed into law by the President, would provide almost \$1.4 billion per year to the states, territories, D.C. and tribes and to several federal agencies to address the conservation and restoration needs of these species. Initial funding would begin in fiscal year (FY) 2023 and continue through FY2026. These bipartisan acts could be the most significant investment in wildlife conservation in a generation.

Scientists and conservation organizations have been working with Congress to make RAWA a reality. More than 1,000 scientists from around the country signed a letter organized by The Wildlife Society and other members of the Alliance for America's Fish and Wildlife in support of RAWA. A second support letter, organized by the National Wildlife Federation,

was signed by more than 1,000 organizations and businesses, including over 30 chapters and sections of The Wildlife Society. These letters, along with many other statements of support, were discussed in detail during various Congressional hearings.

At the time of this writing, RAWA continues to move forward in Congress, but mid-term elections, a few national crises, and a few FY 2023 federal budget bills might delay passage before the end of this (117th) Congressional session. If that happens, the bills will have to be introduced again in the next (118th) Congress, which will be in session in 2023-24. In the meantime, America's scientists along with conservation organizations, state and industry partners will continue to work with legislators to communicate an understanding of this crisis and the need to invest in proactive conservation for the benefit of us all. 🐦



RECOVERING AMERICA'S WILDLIFE ACT

Photo by Texas Alliance for America's Fish and Wildlife

The North American Grouse Partnership

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Photo by Gary Kramer