GROUSE PARTNERSHIP NEWS

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Table of Contents

Cover Photo:
Lesser prairie-chickens on their lek in the morning sun, Prairie Chicken Wildlife Area, Milnesand, New Mexico

Photo by Ted Koch

Message from Jon Haufler, President NAGP

North American Grouse Partnership Addresses the Challenges of 2021

The past year has clearly demonstrated that the North American Grouse Partnership (NAGP) has a critical role to play in grouse conservation. We have been the lead organization advancing greater conservation efforts for the lesser prairie-chicken (LEPC), even when it made us unpopular with state agencies responsible for this species' management. With the U.S. Fish and Wildlife Service again proposing its protection under the Endangered Species Act, our concerns have received greater recognition and acceptance. However, our work is only beginning. Politics and turf-guarding are bound to enter into the process of a potential listing. LEPC need a strong advocate for the use of best science in their management, as economic interests and lobbyists are bound to attempt to exert influence through political channels. NAGP will continue to be the advocate for LEPC and its habitat while garnering assistance from our conservation partners.

NAGP also has a key role to play in promoting the conservation of greater prairie-chickens and sharp-tailed grouse. We helped initiate the interstate working groups for these two species, and for the past 6 years have helped coordinate conservation actions. Continued coordination and facilitation are needed this year to support these groups in completing their planning work and beginning implementation of new and expanded actions. These actions will advance conservation and restoration across the Great Plains and northern shrubland ecosystems.

Our role in supporting sage-grouse conservation efforts will also continue. Cheat grass invasions, altered fire regimes, drought, inappropriate grazing and energy developments continue to cause habitat loss. Our advocacy for use of sound science and increased funding for conservation is needed.

NAGP expanded and engaged its Prairie Grouse Partners this past year. This group shares a common mission of conserving and restoring our prairie ecosystems. Not only for the grouse that we emphasize, but for myriad additional prairie species at risk due to loss of these threatened natural systems. When climate change benefits of strong prairie conservation actions are added, their importance is even more pronounced. The climate change effects on extreme weather events that we witnessed this year, make it apparent that we should be greatly expanding our commitments to prairie conservation and restoration.

Our focus on prairie grouse and sage grouse are current priorities due to on-going habitat declines and risks to these species. However, we continue our monitoring of all North American grouse, and stand ready to take actions on other species as needs arise. NAGP has a vital role to play as the organization that monitors and advocates for all native species of grouse and their habitats.

We need your help. We need to expand our funding base to support the staff, travel, and communications necessary to do this critical conservation work. Please consider making a generous contribution to NAGP this year.

Jon Haufler

Message from Ted Koch, Executive Director

Your North American Grouse Partnership (NAGP) is all about conserving grouse and especially prairie grouse. Sharptails, greater and lesser prairie-chickens, and sage grouse take most of our attention. Unfortunately, the prairies where these grouse are found have been one of the most unloved and threatened ecosystems in North America.

Bird species of the prairies here have declined by 40 percent overall — more than any other group of birds. Lesser prairie-chicken habitat has declined by 90 percent. Sage grouse continue their perilous decline. The heath hen — the eastern prairie grouse — has been extinct for a century. While greater prairie-chickens and sharptails remain relatively more common, they, too, are losing numbers.

Fortunately, prairies are starting to get some love. Groups like the National Wildlife Federation and Theodore Roosevelt Conservation Partnership are helping advance the North American Grasslands Conservation Act, modeled after the successful North American Wetlands Conservation Act from the middle of last century. Groups are convening to develop the Central Grasslands Roadmap to steer conservation efforts. Pheasants Forever and The Nature Conservancy have their own initiatives focusing on prairie conservation.

NAGP is participating in and supporting these efforts and more. Currently, lesser prairie-chickens are on the hot seat because, first, they're the prairie grouse that's closest to becoming functionally extinct in the wild, and second, they have been proposed for listing under the Endangered Species Act (ESA). As with almost all other endangered species, habitat loss and fragmentation are the main threats. NAGP, though small, has provided leadership for other conservation organizations, state and the federal government to better engage in having honest conversations about what is needed to conserve the species.

Sage grouse are next in line for ESA attention. Again, habitat loss is the key — those unloved sagebrush prairies that continue to be degraded and converted to non-habitat. In sagebrush country, it's primarily invasive annual grasses like cheatgrass that displace native vegetation. Cheatgrass infiltrates when land is overgrazed. Since cheatgrass is fire-loving, it then fuels large, frequent wildfires that sagebrush and native bunch grasses cannot survive.

Why care about prairies beyond the grouse themselves? Clean air; clean water; healthy, diverse wildlife; effective carbon sequestration that mitigates climate change effects; and a resource for livestock producers and others. Prairie grouse are excellent indicator species for these values in these habitats. "To keep every cog and wheel is the first precaution of intelligent tinkering," said the great conservationist Aldo Leopold. We can't let lesser prairie-chickens, or any other species, go the way of the heath hen. We must conserve their homes — our prairie habitats.

Please support NAGP, other conservation groups, and your state and federal fish and wildlife agencies, and advocate to your elected officials to better conserve the ecosystems upon which we and all other species depend.

Ted Koch

Photo by Matt Vincent

PARTNER UPDATES:

Pheasants Forever and Quail Forever

Jim Inglis and Bethany Erb

Photo by Jon Haufler

We have lost more than 50 million acres of grassland habitat across North America in the last dozen years. In the last five decades, grassland birds have declined more than any other group at a 53-percent reduction in populations. The proposed North American Grasslands Conservation Act would provide significant funding to enhance the grasslands and sagebrush-steppe ecosystems.

The Time is NOW for a Bold New National Policy

In early September, a dedicated group of ten organizations — NAGP along with Pheasants Forever, Quail Forever, the National Wildlife Federation, Backcountry Hunters and Anglers, the Theodore Roosevelt Conservation Partnership, National Deer Association, Land Trust Alliance, Izaak Walton League of America and the World Wildlife Fund — formalized their launch for the North American Grasslands Conservation Act.

When enacted, this act would function about the same the North American Wetlands Conservation Act (NAWCA) by providing grants to voluntary landowners and tribal entities to enhance and conserve habitat. An investment in the grasslands and sagebrush-steppe ecosystems by way of the North American Grasslands Conservation Act will drive voluntary, science-based efforts to conserve these ecosystems and support working lands.

Our coalition anticipates legislative language in the fall of 2021. To sign up and show your support, visit: www.ActForGrasslands.org. Also be sure to use #ActForGrasslands in your social media posts.

USDA Announces 5.3 million Acres of CRP Enrollment

In early September, the U.S. Department of Agriculture (USDA) announced the acceptance of 5.3 million acres into the Conservation Reserve Program (CRP), the total so far for 2021. This is a significant advancement in our efforts to reverse the declining CRP enrollment trend. We're also much closer to filling the acreage cap authorized by the Farm Bill. This positive news will help stem the tide of the three million acres that expired on September 30, 2021. The breakdown of the enrollments are as follows: 1.8 million acres accepted in the General CRP signup, one million acres of continuous sign-up which includes the State Acres for Wildlife, and 2.5 million acres of grassland CRP. Many of the contracts are re-enrolls, but there is an encouraging number of new contracts as well. This will mean a net gain of acres, with more room for USDA to enroll an additional two million acres during the rest of 2021 and into 2022. CRP remains an effective conservation tool that creates wildlife habitat, improves water quality, protects soil health, ensures climate resiliency and contributes to a safety net for rural economies. CRP is also popular for walk-in-area access programs in many states.

CALL OF THE UPLANDS®

Call of the Uplands® is Pheasants Forever and Quail Forever's first-ever comprehensive, national campaign: a $500 million effort to cultivate the next generation of conservationists enhance over 9 million acres of upland habitat, and permanently protect 75,000 acres of land FOREVER.

JV8 Central Grasslands Conservation Initiative: towards implementation of the JV8 strategy

Graeme Patterson and Jennie Duberstein

The JV8 Central Grasslands Conservation Initiative (JV8) is a partnership of eight migratory bird joint ventures that cover the central grasslands of North America, from Canada to Mexico. These grasslands support bird populations, pollinators, working lands, opportunities for hunting and recreation, and water security. JV8 brings together over seventy federal, state, provincial, non-profit and industry partners to stem grassland losses and the negative impacts to birds and people.

We introduced the JV8 with an article in the Fall 2020 Grouse Partnership News. I am delighted to report that despite travel restrictions and other COVID-related obstacles, JV8 has had a busy and productive year moving forward on its top priorities, including formalizing the vision and mission and developing an implementation strategy document to guide activities moving forward. Below are some highlights

JV8 Vision: By working together, we can create a world where the central grasslands from Canada to Mexico support stable, thriving and diverse communities of birds, other wildlife and people into the future.

JV8 Mission: The JV8 Central Grasslands Conservation Initiative engages and expands migratory bird joint venture partnerships across North America for the stewardship of native grassland ecosystems.

The JV8 Implementation Strategy provides a roadmap for future activities, while also recognizing the significant gap between current conservation efforts across the central grasslands and the big picture, long-term need. The following are the five pillars of the JV8 Implementation Strategy:

Accelerate successful conservation actions. JV8 works with partners to expand the use of proven beneficial management and land use practices to conserve grasslands and grassland birds.

Communicate the importance of grassland conservation. JV8 raises awareness of the plight of the central grasslands and promotes greater support for collective conservation efforts.

Identify and support policy changes that advance grassland conservation. JV8 informs policy to support long-term grassland conservation for birds and people.

Promote applied research. JV8 conducts and supports applied research to answer key questions on how to best use limited resources to conserve grasslands and grassland birds.

Support innovation and new initiatives. JV8 supports innovative approaches to grassland management and conservation that consider the multiple benefits grasslands provide to people, including recreation, pollination, erosion control, water and carbon sequestration.

What's Next?
Over the coming year JV8 is working to make significant strides to address its five strategy pillars. We are actively growing our partnership and invite you to join us. Visit the JV8 website (http://www.jv8.org), view our story map to learn more, and contact your Joint Venture Coordinator or the JV8 Conservation Director for more information (graeme.patterson@jv8.org).

The Central Grasslands Roadmap Collaborative Conservation Movement

Tammy VerCauteren, Bird Conservancy of the Rockies

The Central Grasslands Roadmap collaborative conservation movement continues to build momentum and engagement. Team members rolled up their sleeves in 2021 and worked on developing an agreed-upon boundary map for the effort with input and expertise from partners in Canada, the United States and Mexico. World Wildlife Fund (WWF) led the effort, helped establish the boundary criteria, and ultimately created the map, (fig. 1). Boundaries that informed the roadmap included the Commission for Environmental Cooperation (CEC), Migratory Bird Joint Ventures, and Partners in Flight bird conservation regions. Layers will be added that cover human communities from lands held by indigenous peoples to federal and local landowner cooperatives. Additional wildlife resource layers are also in development.

In addition, in April, every state in the Central Flyway participated in a half-day workshop regarding what their priority needs are for achieving grassland conservation. Highlights included resources to support local collaboratives, habitat restoration dollars, working beyond state borders and monitoring and evaluation. Federal partners from the Natural Resources Conservation Service, United States Forest Service, Bureau of Land Management, United States Fish and Wildlife Service and Farm Service Agency gathered for a virtual meeting in August to identify ways to work across borders and agencies. The JV8, NRCS Great Plains Framework, Central Grasslands Roadmap and FSA Grassland CRP program set the stage for the meeting. A clear need and opportunity expressed in the meeting was for more proactive dialogue across agencies, streamlining paperwork and information when working with landowners and managing at community levels.

Meetings and discussions were held with landowner groups including the Rancher Stewardship Alliance, Missouri Conservation District, South Dakota Grassland Coalition and Society for Range Management. In addition, a survey was sent to ranchers and producers across the Central Flyway to gather local-level information on barriers and innovations for grassland conservation. Results of the survey are posted on the website, www.grasslandsroadmap.org. Key needs are for local flexibility in programs, more awareness of opportunities for ranchers and producers and the desire for training and hands-on learning together in the field.

The roadmap's policy team is moving forward on sharing these needs and messaging regarding how to make America the Beautiful work in a working landscape. Additionally, the team is outlining the need for proactive voluntary efforts on private land and elevating the needs and opportunities on lands held by indigenous peoples. Partners are also encouraged to support the Recovering America's Wildlife Act and the National Wildlife Federation's North American Grassland Conservation Act.

The metrics team is keying in on measures and outcomes that will change the trajectory of our grasslands and communities including acres, dollars invested, wildlife population levels and the resilience of our communities. To help in quantifying population targets, scientists are convening in late October to identify the suite of species that will bring us together for conservation, address species in greatest decline and those that resonate with diverse sectors from landowners to partners, and the acres needed to support populations.

The communications team is working on messaging that targets urban and suburban communities across the region to elevate their understanding and make them aware of their relationships with grassland environments. We are developing a forum to host conversations in Colorado that will discuss what grasslands are; challenges they face; a community case study and a discussion of how ranching, conservation and wildlife can go together. Finally, the representative, cross-sector planning committee is building toward the second summit to be held in May 2022 in Fort Collins. Stay tuned and feel free to get involved, sign up for our newsletter or join a work group. Reach out to info@grasslandsroadap.org.

RGS/AWS Update

Ben Jones

RGS AWS
RUFFED GROUSE SOCIETY | AMERICAN WOODCOCK SOCIETY

Ruffed grouse recently were listed as a state endangered species in Indiana, where they were regionally abundant just thirty years ago. Ruffed grouse are also cited as a Species of Greatest Conservation Need in 19 State Wildlife Action Plans. The Eastern Grouse Working Group (a collective of upland game bird biologists) released a report in December 2020 that summarizes the issues. From their report:

"It seems probable that ruffed grouse populations will continue their rapid decline in the Eastern U.S unless wildlife agencies, partners, and private landowners undertake immediate conservation efforts. While many jurisdictions are conducting site-specific habitat management for ruffed grouse and other early successional species, the scope and scale of the grouse decline calls for a different approach. Large scale strategic planning and prioritized…actions by a diverse cohort of conservation partners will be needed to [sustain] ruffed grouse populations in the Eastern U.S."

As with many North American grouse species, it is clear that resilient habitat conservation is key for ruffed grouse, especially considering West Nile Virus and other compounding stressors.

The Ruffed Grouse Society has a storied, 60-year history of supporting science-based forest and wildlife management. The future of ruffed grouse, American woodcock and all forest wildlife depends on the complex world of forest management; a world that is driven by economics, public perception, and policy as much as natural history and biology. To be impactful in this space, we are diversifying our approach.

We recruited new Regional Forest Conservation Directors over the past year to incorporate best practices of forest management, product markets, wildlife needs, regional grant sources, and public policy into a robust business plan for each region. These key team leaders understand the intersection of forest management and wildlife habitat. Above all, they are strategic thinkers who are working to scale up programs commensurate with the need highlighted by the Eastern Grouse Working Group.

With our new team in place, RGS is moving forward to address what leading biologists tell us is most needed – practical, bold initiatives for forest management at scale. The future of this imperiled grouse is at stake.

Lesser Prairie-chickens in the Balance

Jon Haufler and Ted Koch

We may be almost done ignoring the crisis of the loss of southern Great Plains prairie ecosystems. The crisis has been in slow motion so we as a society either haven't noticed or cared sufficiently that there is little prairie left to save. But there is still hope.

As southern Great Plains prairies go, so goes the lesser prairie chicken, the enduring, iconic wild grouse of these prairies. State fish and wildlife agencies in the region built a "Range-Wide Plan" eight years ago to save lesser prairie-chickens, but it has gone largely unimplemented. One goal was to restore 1 million acres in 10 years, but with only two years left to go, we're still short by more than 950,000 acres. And there currently are no effective coordinated efforts to change that.

Chicken populations have been reduced by 90 percent from as recently as the 1960s, and incredibly, with a recent positive bump of maybe 5 percent after a couple years with improved rainfall, we have some saying, "We're good!" We are not good, as the recent proposal by the U.S. Fish & Wildlife Service to list the chicken under the Endangered Species Act indicates.

Go back to a time when Native American tribal dances were inspired by the spectacular spring mating dance of the chickens, and there were likely millions of birds. From that perspective, there are only a tiny fraction remaining in scattered remnants today. Some people are still inspired by chickens. Bird enthusiasts travel from around the world to watch the crazy, foot-stomping, feather-puffing mating rituals and fights of male chickens in April. But for how much longer?

Having lost 90 percent of our prairie heritage, are we greedy or careless enough to keep going until the last 10 percent is gone? Or do we take this moment, when we're considering admitting the chicken to the wildlife emergency room full of other endangered species, to say, "No more"?

Prairie ecosystems are the most threatened and least conserved in North America. And chickens are so tied to broad, unspoiled prairie landscapes that, if we lose them, then we'll know we've lost our last wild prairies. With this loss, we would lose other grassland birds species which, as a group, have declined more than the birds in any other North American ecosystem. We would lose important pollinators, native grasses and flowers, good soil health, water quality and quantity, and even the opportunity to sequester carbon to help fight climate change.

Because of the extensive threats to prairie grassland ecosystems, all native prairie grouse in North America have either been extirpated or are declining. Heath hens are extinct and Attwater's prairie chickens are critically endangered. Greater sage-grouse are increasingly threatened, and greater prairie chickens and sharp-tailed grouse are declining. Lesser prairie-chickens are simply further down the road toward extinction than most other remaining prairie grouse species.

Lesser prairie-chickens survive today only because of generous private landowners who steward almost all of the remaining habitat. If Americans are to save the last fragments of prairies and chickens, those landowners deserve our support.

And we know how to support them through Farm Bill programs, well-designed mitigation programs, and other voluntary efforts. Implementation of the Conservation Reserve Program (CRP) in western Kansas over the previous decades has helped provide thousands of acres of grassland habitat that now support 70 percent of the remaining populations of lesser prairie chickens. Rededicating ourselves to this and other existing and new programs with willing landowners will reduce and remove threats and enhance prairie ecosystems.

The U.S. Department of Agriculture (USDA) recently took steps to improve grassland conservation with willing private landowners, as demonstrated through the new Great Plains Grasslands Framework and important changes to the CRP that were recently announced. In addition, recent enrollments in the Grassland CRP program included 1.4 million acres adjoining or including ranges of the lesser prairie-chicken and greater sage-grouse — this is good news, but it's only a start.

Along with our conservation partners, we are asking that USDA and other agencies and organizations administering other mitigation and

Photo by Matt Vincent

conservation programs to place an emphasis on a more strategic and focused implementation of these programs in the southern Great Plains because of the urgent needs here. What is needed is a better coordinated delivery of a combination of conservation practices that will provide landowners in strategic locations with the economic incentives needed to engage them in providing large blocks of high-quality lesser prairie-chicken habitat. We need to knock on the doors of the right landowners —those with the most potential to help conserve chickens— and offer them sufficient incentives to help meet the greater good of long-term prairie ecosystem conservation. We need to shift our conservation efforts to produce the needed results in strategic key locations rather than the "random acts of conservation" that have dominated the well-intended but largely ineffective past conservation efforts.

NAGP has identified three critical needs for lesser prairie-chicken conservation. First, a need that is beginning to be addressed through the shift in USDA programs is increased funding dedicated to lesser prairie-chicken conservation. Second, is the need for a lesser prairie-chicken coordinating group that can focus delivery of multiple conservation programs on an identified system of strategically located priority locations. Then, increased and concentrated on-the-ground delivery of conservation practices with greater economic incentives for voluntary engagement of private land owners can begin.

With the vast majority of remaining chicken habitat on private land, the proposal by the U.S. Fish & Wildlife Service to list chickens under the Endangered Species Act represents more an opportunity for private landowners than a regulatory threat. The Service will not be able to, or be inclined to, regulate chickens to recovery on private lands. Full species and ecosystem recovery will only happen on a voluntary basis with willing landowners. Fortunately, the Service and others are well positioned to help interested landowners implement conservation and gain regulatory assurances here.

There is also a lot of other activity regarding prairie ecosystem conservation: The Central Grasslands Road Map is an effort to develop and implement a vision for prairie conservation across North America; The Nature Conservancy's Great Plains Initiative focuses on prairie conservation on that landscape; Pheasants Forever's Call of the Uplands initiative similarly aims to conserve prairies; new approaches such as the North American Grasslands Conservation Act idea, led by the National Wildlife Federation and others, could make even greater gains for our beleaguered prairies if passed by the U.S. Congress.

The time to act is now. We know how to act. We have the tools available. All that is required is the collective will to support those who would want to conserve grouse as they have for generations.

Ode to the Grasslands

Chad Love

As I write these words I — like many other upland hunters — am also packing for a trip. It is September, and the tug of autumn restlessness is upon me. Ancient gods are stirring, spurred by the rustle of wind through turning leaves and the sound of summer birdsong fading into past. I sit here, drinking coffee and writing on my back porch as a few late migrant hummingbirds drink at the feeder. I listen to the high-pitched calls of young Mississippi kites soaring as they test their wings. They'll be gone in another week or so, riding the ancestral slipstream currents elsewhere. As will I.

I am heading north, into the High Plains, to hunt native prairie grouse: sharp-tailed grouse and greater prairie chickens. These birds, these ancient icons of the vast sea of grass and staggering biodiversity that once was — and remains still — the vital, beating heart of the North American continent, enthrall me, and always have. They are the embodiment of space and light and grass and wind and beautiful emptiness, and their disappearance from much of their historic range makes our world a poorer, less wondrous place.

I may be successful on my hunt, or I may not. The actual taking of birds is immaterial to me. I don't hunt prairie birds because I want to bag prairie birds. I hunt prairie birds to connect — in some small way — with what they represent. And what they represent is the staggeringly important, yet tragically unheralded environmental soul of our nation.

Grasslands. No matter what you call them — plains, prairie, uplands, savanna, sagebrush steppe — or where they are found, grasslands are our national cathedral of space, wind and sky. Yet they have historically suffered the myriad indignities and abuses of our industrialized world virtually without advocacy or protest or concern. Why? Why are our grassland regions and the amazing diversity they support so devoid of public thought, public concern, public protection?

Perhaps it is the illusion that our grasslands haven't changed that much. After all, to the casual observer, grass is grass, right? If you look out over a landscape that historically was devoid of trees and mountains and that landscape is still largely devoid of trees and mountains, then what, really, is different?

As it turns out, virtually everything. Grasslands may look like a monoculture, but in fact they are incredibly diverse ecosystems that support a dizzying array of plant and animal life, each one uniquely suited to and dependent upon the grasslands habitat in which it evolved.

And if you take away all those little pieces that make up the whole and replace them with just a few pieces of something else, then you lose the whole. What you are left with is not what it once was.

And we are losing all those little pieces at an astonishing — and accelerating — rate.

By most accounts, North America has lost almost three-quarters of its grasslands and prairies. In just the past 10 years we've lost an estimated 53 million acres of grassland habitat in the Great Plains region alone. Think about that: In the span of a single bird dog's lifetime, we've lost an area the size of Kansas.

According to a landmark 2019 report on the state of grassland birds released by the National Audubon Society, overall grassland bird species have declined by over 40 percent since 1966, and some species have declined even more.

But we haven't just lost birds, or land, or grass, or places to make memories and watch our dogs run. We've also lost a part of who we are. I'll give you an example. ...

I live in Oklahoma, in the middle of the southern plains. I can step outside my back door after a prairie thunderstorm and smell the wet sand-sage wafting in the fresh, rain-scrubbed air. Yet I must travel north to hunt prairie grouse like sharptails and prairie chickens. I assumed it was always this way.

But one day, as I was perusing an old 1941 edition of a pamphlet published by the Oklahoma Game and Fish Department (now called the Department of Wildlife Conservation) that I had found in a bookshop, I read a passage that described a small, but most definitely present-at-one-time population of both sharp-tailed grouse and sage grouse in Oklahoma.

I was floored. Oh, I knew all about Oklahoma prairie chickens, of course. But I had no idea, no idea at all, that those lonely sagebrush hills where I now follow the dogs in pursuit of my beloved bobwhite quail once held sharptails, and sage grouse, too. The very birds that I am now preparing to go hunt 400 miles north were once here, where I live, hard up against the hundredth meridian in northwest Oklahoma's sand-sage prairie. Imagine that.

Can a land hold some vestigial memory of what once was but is now gone, never to return? I believe so. Our grasslands are at once our most magnificent and tragic place, a region crowded with ghosts that linger on just beyond the conscious periphery of memory. I can feel them all around me whenever I walk across this landscape and imagine what — and who — came before me.

And it's fascinating, in a decidedly bittersweet way, to imagine that in addition to all the indigenous peoples, homesteaders, cowboys, trappers, explorers, bison, wolves, bears, elk, mastodons and everything and everyone else that left an imprint in this swirling dust before me, I now know there are two more ghosts out there walking these plains, two more faint and dimming after-images of what was once a bright and searing now.

Photo by Chad Love

Photo by Chad Love


Photo by Chad Love


Photo by Chad Love

Will I ever see sage grouse or sharptails in Oklahoma again? Will they ever contribute to the character of this land, add to its sense of place and history? Sadly, no. But we have the power to ensure that what still remains will always remain, and perhaps even reclaim some of what was lost.

We can do it. We know we can because it's been done before. The North American Wetlands Conservation Act was enacted 30 years ago in response to the exact same alarm bells that are now ringing for our grasslands. Since its inception in 1989, NAWCA has helped protect almost 30 million acres of wetland habitat. Due to a combination of awareness and programs like NAWCA, wetland bird species have not experienced as steep a decline as grassland birds have.

That's the power of awareness and action, and that's exactly what a North American grasslands conservation act could do for our most imperiled, most overlooked, and most critically important landscape. We need a national, landscape-level initiative to save our grasslands.

Lose the grasslands, and we lose everything they represent and everything that depends on them. And if we lose that, we lose ourselves. No matter where or what form your grasslands take, please help us protect them, for there is no solace like the solace of space and light and distance and solitude.


Photo by Chad Love

On the Anvil of the Sun

On the Great Plains, climate change means fewer birds

Chris Madson

January 27, 2015, Ogallala, Nebraska— Flick the Brittany and I happened to be in the vicinity that morning with birds on our minds. It was a brilliant day as I recall, a mild zephyr drifting up out of the southwest and an occasional cumulus cloud overhead. According to the National Weather Service, the temperature topped out at 74 degrees in town that afternoon, 35 degrees above the average high for the month. I'd worn far too much clothing. I kept shedding layers until I was down to my tee shirt, which left my bird vest hanging baggy over my shoulders. Good thing I'd brought plenty of water for the dog … and for me.

It was a pleasant enough experience — a little surreal, considering that I was at 3,000 feet above sea level in what is typically the coldest month of the year in a part of the world notorious for its blizzards — but pleasant. As I strolled along behind Flick, I thought this was a gift for the game birds left on the landscape. The hunting season would be closing in less than a week, and there had been no sign of winter. Even if February decided to get nasty, survival of adults into nesting season was going to be outstanding, which boded well for populations the next fall.

As it turned out, there was no boom among pheasants, sharptails, prairie chickens, or bobwhite that next season, at least, not where I hunt on the High Plains. Numbers were fair but far from overwhelming. As a bird hunter and lifelong resident of the Midwest, I struggled to understand how such a promising beginning to the calendar year could end in such mediocrity. Through much of my life, the answer to the question "Why aren't there more birds?" was nearly always "Weather," generally a killer winter with an occasional flood or hailstorm thrown in to blunt the prospects in one local area or another. As far as I could tell, western Nebraska's weather that year had been almost perfect for birds.

The other response was usually "Predators," but the science shows that predator numbers are nearly always determined by the abundance of prey, not the other way around, and, when I thought about the previous two or three hunting seasons, it seemed to me that nonhuman predators were thin on the ground— nary a fox, coyote, raccoon, or badger had Britt located, and I could drive miles along county roads without seeing a single redtail. Predators didn't seem to provide a satisfactory explanation for the so-so bird populations, either.

There were other possible causes, of course. Cover isn't what it used to be, either in acreage or quality, and food is getting to be a scarce commodity on the modern farm landscape. Today's combines leave little waste grain, and what little escapes gets eaten by cattle turned loose on the stubble after harvest. There's growing evidence that summer rations are also limited— weed and insect control are decimating the insect populations that provide crucial protein for young birds and adults alike.

There's one other body of emerging research that offers a possible explanation. It harks back to weather as a recurring problem for prairie grouse and other upland game birds, but not in the way I was taught 50 years ago. In the new world of climate we're building, year in, year out, summer may be a bigger threat than winter.

Some of the most compelling technical insights on this matter come out of the Texas quail country from Fred Guthery, one of the continent's leading experts on the bobwhite. Twenty years ago, Guthery and his students monitored bobwhite courtship and nesting during an unusually blistering summer. According to their report, the extreme heat "was associated with an 86.4-percent decrease in the calling activity of males." The heat was sufficient, they wrote, "to kill embryos in eggs, chicks, and adults; cause premature incubation and staggered hatching; reduce the length of the laying season and thus inhibit renesting and multiple brooding; and cause males and females to go out of reproductive condition."

In another technical paper, Guthery and his colleagues concluded that "bobwhites suffer thermal stress even in quality habitat. Such stress may not be completely reversible by management."

The idea that extreme summer heat could inhibit courtship and nesting and might even kill adults and their eggs was a revelation for me. Less surprising has been the growing body of evidence that rainfall — or a lack thereof — could also affect populations of upland birds. The relationship between rain and desert quail has been clear for almost a century, but recent studies have shown that bobwhite quail populations also depend on adequate rainfall. Andrew Tri and his colleagues at the Caesar Kleberg Wildlife Research Institute in Texas analyzed bobwhite production in the state and found "a positive, linear relationship between cumulative April-August rainfall . . . and a negative, linear relationship between June-August maximum daily temperature." They concluded that "rainfall is a landscape-scale indicator of annual bobwhite production in South Texas." For a person of Norwegian ancestry, such as myself, the empty part of this glass is that drought is bad for bobwhite quail.

Photo by Chris Madson

And prairie grouse are no better at handling the brutal conditions of heat waves and drought that are chronic characteristics of summer on the Great Plains. Researchers led by Blake Grisham of Texas Tech University measured temperatures in the nests of lesser prairie chickens across the species' range and found that the chances a nest would survive to hatching "decreased by 10 percent every half-hour when conditions were beyond the threshold of 34°C. [93°F.]." Their investigation spanned several years on various parts of southern plains, and they concluded that "lesser prairie chickens were exposed to temperatures that exceeded not only their own tolerance levels, but likely that of their eggs."

Greater prairie chickens suffer similar problems. Oklahoma State University researcher David Londe and coworkers measured conditions at greater prairie chicken nests and reported that "daily nest survival declined under higher daily maximum temperatures, especially in years with below-average rainfall. Greater prairie chickens began nesting earlier and had smaller clutch sizes for initial nests and renests in years with warmer temperatures prior to the nesting season. Additionally, incubation of nests started later in drought years."

No one has studied the effects of high temperatures and drought on plains sharp-tailed grouse, but, since they are the northernmost of our prairie grouse, the chances are good that they're even more poorly adapted to extreme heat and drought than their cousins to the south.

All these prairie residents have evolved on the demanding landscapes of the Great Plains. They've lived through extreme drought and withering heat many times in their tenure on the grasslands. They're equipped to deal with all the old challenges. If the land and weather in the region were only repeating the cycles of hot and cold, wet and dry, boom and bust that have defined it since the last continental glaciers receded, there would be no cause for concern. But the changes afoot on the modern plains are unprecedented, and the emerging reality is a matter of grave concern for anyone who values the prairie and its birds.

It's important to recognize that temperatures on the Great Plains have already risen. The most recent national assessment of climate reports that the average annual temperature in the northern Great Plains has risen by 1.69°F. compared to the average from 1901 to 1960. On the southern Great Plains, average annual temperature has risen by 0.76°F.

Fred Guthery has speculated that this trend may have affected quail:
"Populations of scaled quail and northern bobwhite have declined coincident with global warming," he wrote in 2000. "Undoubtedly, habitat loss and fragmentation explain declines in some regions. However, in portions of the Southwest, scaled quail populations have dwindled in areas where habitat quantity has apparently been constant. Could there be a cause-effect relationship between global warming and quail declines?"

The International Panel on Climate Change (IPCC) issues periodic summaries of research and predictions of long-term shifts in weather patterns around the world. In its most recent report, the IPCC estimated that, without action, temperatures in western and central parts of the continental U.S. could rise by more than seven degrees Fahrenheit by the year 2100. Precipitation was expected to be greater during the winter, five- to ten-percent less in the summer. "Projected increases in annual precipitation are partially offset by increases in evaporation; regions in central North America may experience net surface drying as a result," the panel concluded.

Or, to put it another way, the last national climate assessment in 2018 estimated how many more days over 90°F. residents of the northern Great Plains would see by the year 2050, thirty years from now. The researchers chose 90° because temperatures above that threshold cause demonstrable stress in crops and people. It also happens to be the kind of heat that interferes with courtship and nesting in prairie grouse and other upland birds. The report predicted an increase in 15 to more than 45 days with temperatures above 90°.

On the southern Great Plains — the states of Texas, Oklahoma, and Kansas — the report estimates that there will be 20 to as many as 90 additional days over 100° by the end of the century.

More heat waves more often can be expected to reduce production in all avian populations— from mallards and teal, sharptails and prairie chickens, to bobwhite and bobolinks — as a direct result of the physiological effects high temperatures have on breeding birds as well as the impact those temperatures have on the viability of eggs. The rise in summer temperatures may also have a more subtle effect, influencing the kinds of plants that can survive on the 21st-century landscape. Any human resident on the plains will testify that shady, breezy spots provide a crucial refuge from mid-day heat on the sun-blasted face of the Great Plains. As vegetation on native prairie and CRP gets thinner and shorter in response to heat and drought, there may well be fewer such refuges for wildlife in the future. For generations, hunters and biologists have thought of cover as protection against predators; in the brave new world, it may be more important as protection from the sun.

On the scale of the trouble climate change will cause in the next century, the fate of native game birds on the plains may not weigh too heavily. Some of us will feel the decline; in fact, many quail hunters already have, but most people are too busy with their lives to give species like the bobwhite, scaled quail, lesser and greater prairie chickens and sharptails much thought. Still, our future is bound up with all the other living things on the planet, whether we care to admit it or not. Their trouble will inevitably be ours. What we do to help them will help us as well.


Photo by Chris Madson


Photo by Chris Madson

Idaho Sage-Grouse Regulations:
Questionable Science and a Troubled Rollout

Jack Connelly

I vividly recall a seasonably cool September day five years ago when I took my 12-year-old grandson, Jake, on his first sage-grouse hunt. Arriving at a sagebrush flat interspersed with seeps and springs and following some last-minute safety instructions, we set off with my shorthair Meg. Meg was my can't-miss grouse dog; close-working, staunch on point and always under control. She was the perfect dog for a novice hunter. Meg soon locked up, and Jake had his first opportunity. He missed, but, just minutes later Meg had another grouse pointed. Jake moved forward; the bird flushed, and my grandson made a fine shot. Jake and I have enjoyed a day or two of sage-grouse hunting every year since. I knew it couldn't last.

Sage-grouse populations throughout the species' range have been declining for years. Recently, the U.S. Geological Survey reported sage-grouse populations have declined 80 percent range-wide since 1965 and decreased roughly 40 percent since 2002. Concern over these declines has led to numerous state and federal actions to turn things around. Unfortunately, these actions have been largely unsuccessful thus far, and populations remain in jeopardy.

Sage-grouse population problems are no mystery. Scientists have consistently documented habitat loss (usually from wildfire), invasive species and infrastructure (including fences, powerlines, energy development) as the major problems affecting sage-grouse numbers. In some limited areas, other factors may play a role. Nevertheless, because of the complexity and inherent difficulties associated with addressing the major problems, agencies sometimes try to give the illusion of success by focusing on less important issues.

This seemed to be the case recently to some Idaho hunters when the Idaho Department of Fish and Game (IDFG) completely revised sage-grouse hunting regulations. Although many states still allow limited sage-grouse hunting, current hunting practices have not been identified as a major issue affecting populations, making it difficult to understand the department's rationale for its action.

More than 20 years ago, IDFG began to institute more conservative sage-grouse hunting seasons because of concern over numbers and evidence indicating liberal seasons (example: two to three sage-grouse per day, 30-day season) may harm populations. This conservative approach was formalized in

The author's grandson Jake and shorthair Meg with Jake's first sage-grouse.

IDFG's 2006 sage-grouse conservation plan, identifying three season options based on lek count data. The seasons were classified as closed, restrictive (one-bird daily bag, seven-day season), and standard (two-bird daily bag, 23-day season). The agency employed a "trigger" allowing an objective, data-driven approach to management.

Recently, IDFG staff biologists reported that the 2006 harvest management approach was followed from 1996-2020 but is now outdated and inflexible. In reality, the plan was not always followed, perhaps suggesting continued uncertainty about effects of hunting. For example, the season for much of eastern Idaho over the last two years has been one bird/day with a two-day season; this season framework was not included in the 2006 plan.

In July 2021, following IDFG's recommendation, new regulations were adopted by the IDFG Commission. The new system established 12 hunting zones across southern Idaho and allotted a certain number of tags within each zone based on the Department's assessment of sage-grouse fall numbers. A hunter could purchase two tags in some zones but, in most zones, hunters could only purchase a single tag. A total of 1,950 tags was allocated for the 2021 season running from September 18 to October 31.

A department staff biologist said better and more recent data and use of tags give the agency more flexibility, allowing some hunting in areas that might have been closed under the previous system due to fire or other habitat loss. The biologist further emphasized the tag system is designed to limit harvest to 10 percent or less of the estimated fall population in each of the 12 zones. The biologist said the agency uses a population model that incorporates estimates of breeding males, sex ratios (based on previous reports), survival rates of males and females, and the last three years of productivity to estimate each zone's fall population. The agency then adjusts for hunter success in each zone to calculate number of tags.

Unfortunately, the agency faces several challenges to reaching its objectives. First, IDFG will have difficulties assessing effects of the new regulations on harvest because information is lacking on what proportion of the population in each zone was harvested under the old regulations.

Second, lek counts still drive decisions, as they did in the previous approach. The best available science recommends conducting lek counts from one-half hour before to one hour after sunrise. A few years ago, I accompanied IDFG biologists on a lek route. These biologists expressed concern about IDFG adding a half hour to the morning count window, noting grouse are often seen leaving the leks that are counted last. Sure enough, as we approached the last leks males were flying off to feed in nearby sagebrush. By lengthening the count window, the agency ignored recent studies indicating this method produces biased data, resulting in lower counts (and supporting the field biologists' observations). Amazingly, IDFG conducted some of this research.

Third, estimating sage-grouse fall populations is incredibly complex. The spring breeding population first has to be estimated. Some mathematical approaches allow an estimate of male numbers, but, to get the total population, an estimate of female numbers or the sex ratio is necessary, and neither can be easily obtained, especially across 12 management zones. Moreover, some information suggests the sex ratio varies among years.

Fourth, breeding numbers may not directly relate to hunted populations. For example, given the new IDFG sage-grouse zones, radio-telemetry has shown many grouse counted on leks in Zone 7A are in 7B during the hunting season and grouse in some zones are in adjacent states during this period.

Finally, data on spring/summer mortality, percentage of hens nesting, nest success and chick survival to September are needed for all 12 Idaho zones to allow a reliable allocation of tags. IDFG staff indicated that they are estimating fall populations for each zone, but they are actually using an index to fall numbers. The problem with this is that there is no way to "know" how close the index is to the actual population, meaning the agency cannot say with any certainty that they are harvesting 10 percent or less of the fall population.

Given the magnitude of the changes for sage-grouse hunting regulations there was surprisingly little public outreach or involvement, especially with respect to how the new regulations would be more effective conserving and managing populations compared to earlier regulations. The department simply posted a news release about the new sage-grouse tag and provided two other news releases after the new regulations were approved. The only public input into the process occurred at the IDFG Commission's public meeting.

The revised regulations substantially increase the cost of hunting sage-grouse. The cost of a Dad taking his two boys sage-grouse hunting increased by over 370 percent. Last year, each hunter bought a sage/sharp-tailed grouse permit for $4.75; total cost for the father and two sons was $14.25. Now that same cost is $68.25, and they would still have to get a sharptail permit if they wanted to hunt that species.

The new regulations have a substantial effect on falconers. If a falconer also enjoys hunting sage-grouse with a shotgun, the new regulations mean that hunter has to choose either gun or falcon because of the restriction on tags. Although falconers have a seven-month season, they can only take one sage grouse in most zones, so the length of season is meaningless for those wanting to pursue sage grouse.

In his 1981 monograph on sage grouse, former IDFG biologist Bob Autenrieth noted that the idea that hunting is the primary constraint on sage-grouse numbers was widespread among hunters. Since then, agencies have made progress in educating hunters and others on the serious impacts of habitat loss to sage grouse as well as the relatively minor effects of hunting. Perhaps the most worrisome aspect of these regulation changes is that the focus on hunting detracts from meaningful conservation issues and gives the impression of progress when, in fact, things are getting worse. IDFG's renewed focus on hunting may undo efforts to conserve habitat and undermine work to address other serious issues.

If reducing harvest is a goal, the new regulations will probably not accomplish this. An IDFG staff biologist told me that the estimated 2019 sage-grouse harvest was 1,000 birds and in 2020 it was a little over 1,800 sage grouse. Given generally high success rates of sage-grouse hunters, it's likely that the 1,950 allocated tags will translate into a harvest level somewhere between the last two years.

I suspect most hunters would agree that a flexible harvest system allowing a fish and wildlife agency to respond to unexpected changes is a good idea. Hunters and others will be most likely to support hunting regulations that they perceive are effective in conserving the resource while providing reasonable hunting opportunity. Considering the questionable use of science and the agency's minimal effort at public involvement, the new sage-grouse regulations may do more harm than good.

It's very likely that this year's severe drought has negatively affected sage-grouse, numbers. The drought, combined with the new harvest regulations, is troubling, so this year my grandson and I will skip sage-grouse hunting and instead focus on ruffed and dusky grouse.

A LIFE-LONG LOVE AFFAIR
WITH GROUSE AND FALCONS:

Ralph Rogers

"I love grouse; I love the way they look; I love the habitat where they live; I love the way I have to walk to find them; I love how they hold for my dog; I love the way they sound when they flush; and, I love the way they taste.
~Jim Range~

I love grouse too, Jim … and falconry. For more than 55 years, these two entities have been a major force in my family's life. I am a biologist; my kids are professional biologists; we have lived only where there are grouse, and we ultimately settled in the middle of grouse in Montana. I have taken jobs only where I could hawk grouse. There are falcons in my backyard that live in nicer houses than we do, and there are myriad other ways falcons and grouse have subtly shaped our lives.

The poets and naturalists understand. Roger Tory Peterson points out that "man evolved from antiquity with a peregrine falcon on his wrist." The Craighead brothers said, "to become a falconer, one must become the complete naturalist." The Professor, Aldo Leopold, said, "falconry is the perfect hobby." But for me, falconry has always been more than a hobby; it has been a lifelong love affair, without apologies.

Like any love affair, the beginnings are frequently the most memorable and passionate. This is certainly the case for the first time I attempted to catch a grouse with a falcon sometime in the 1960s while a student at Texas Tech, Lubbock, Texas.

I knew from a girlfriend that there were prairie chickens where she lived along the Texas border with New Mexico. I married that woman, but it had little to do with this important information. This is the middle of the Llano Estacado named by Coronado in a letter to the King of Spain 1541.

October 20, 1541: "I reached some plains so vast, that I did not find their limit anywhere I went, although I travelled over them for more than 300 leagues (ca. 1000 miles) . . . with no more land marks than if we had been swallowed up by the sea . . . there was not a stone, nor bit of rising ground, nor a tree, nor a shrub, nor anything to go by."

Even in the '60s, the land was very different from Coronado's description, but there was a mix of grain farming and large uncut tracts of native prairie. This is the historic range of the lesser prairie chicken, and they lived there in good numbers.

The local filling station owner in Plains, Texas, guided me. This gentleman simply closed the station (apparently everyone in town had a key anyway) and took me to the Schooler Ranch. We left early to meet the landowner, who was expecting us. His name was either Tim or T. M. Schooler. In West Texas, both are pronounced the same and for the next 15 years I just mumbled his first name.

Photo by Ralph Rogers

In that area, like the Sandhills of Nebraska, you simply can't drive on native prairie. Any disturbance and the vegetation dies, the sand blows away, and the roads become an open-top tunnel with clay sides two- to six-feet deep. His house, too, sat in an area cleared of sand dunes and appeared to be a structure sitting in a gymnasium that had no roof. Along the south side of his house was an old C.C. Slaughter wagon trail looking just as it had for the last 100 years after giant mules pulled and trampled the shinnery oak vegetation.

In that country, the ground heals very slowly, or not at all. Long gone when I first saw this place was the "grass to the shoulder of a horse" that Coronado describes. We know now he was speaking of big bluestem and Indiangrass. When I first saw it, the groundcover was well-used grass and shinnery.

After introductions, Mr. Schooler talked of planting the first grain in some prairie sod he broke out decades earlier. He spoke of prairie chickens waiting on the grain to ripen, then flying in by the thousands, landing on the grain heads, bending them over, and eating almost everything." The sky could be darkened, and there were more chickens each day," he said.

Schooler couldn't have been nicer but looked at me with a jaundiced expression when I announced that I was going to catch a chicken with a trained falcon. To bring unanimity to the skepticism, the filling station owner again looked at me with an "I'm-calling-BS" expression. After seeing the falcon sitting in my truck, both said they wanted to go watch. Schooler and his son took us to that same field where he had been growing and unintentionally feeding chickens for three generations of Schoolers. The Schoolers became great friends of mine.

At 45 minutes before sunset, chickens began to fly out of the grass into a harvested field of grain sorghum, just as Schooler, now sporting a very smug expression, had said they would. We marked the first small group down and I began fussing with equipment, getting ready. Schooler said, "Wait a minute, there will be more." and more there were, then more, followed by more, and finally more. It "mored" for 20 minutes with a constant stream of chickens entering that field. Sunset was approaching, and grouse continued to come in, not thousands, but certainly three or four hundred. I was beginning to sweat now, dealing with a problem I hadn't anticipated. In level flight, chickens and falcons are about the same speed with an edge to the chicken if there is a headwind. Also, the motivation factor gives advantage to the chicken. The falcon is just flying for a meal; the chicken has much more to lose.

I couldn't release my falcon while there were chickens in the air. That would result in an instant emergency with her chasing the first one she saw even though she had little chance of catching it. That flight would have ended miles into Coronado's roadless sea of grass with little time to recover her on foot before dark. We needed the chickens on the ground and therefore out of sight when the falcon took off and climbed.

During a short break in the action, and with perhaps 15 minutes of daylight left, I couldn't restrain myself any longer and released the peregrine. This was an excellent and experienced falcon that regularly took ducks from high altitudes. She flew directly away us, climbing over a huge remnant of Coronado's sea of grass. She disappeared.

I had inadvertently trained her to look for ponds like the ones I had released her over almost every day of our relationship. Thank goodness that from horizon to horizon there were no ponds in sight or she would have gone there looking for ducks.

Photo by Ralph Rogers

My mistake turned into advantage, however, when we finally saw her looking for us, returning, and gaining altitude all the way back.

She was high, really high in the air so that the full evening sun was directly on her, making her look like an on/off beacon as she opened and closed her wings. On the ground, it was late enough so that the human shadows had all melted into one. I asked Schooler to watch her while I moved diagonally through the cut grain towards the closest bunch we had marked down.

I had learned from rare efforts on pheasants that you can't look up at a falcon and run through knee-high cut grain without ending up punctured and on your head. Even though I was not close, one of the chickens flushed off of my flank. It took off into the wind toward the west, but, once fully at speed, it made a 180-degree turn back towards grass and home. I could hear a sound above me that sounded like the hiss of an artillery shell falling, but I could not see the peregrine.

And then I did. The red West-Texas sun was on her red chest. She was folded into a shape that would have gone through a six-inch pipe untouched. That chicken was cackling with a sound exactly like someone laughing. The falcon seemed to be a blur when she changed from a vertical stoop to horizontal flight and closed the distance between them. I was 20 years old, intoxicated by what I was watching, and not sure I had remembered to breathe. She closed to within 20 feet when the chicken rather casually made a turn left, then right. The falcon had leveled off too far behind the grouse and by following through the turns, left and right, she burned off much or most of her kinetic energy. And with that, the chicken issued another laugh, turned on the afterburners, and left.

This wasn't the first falcon that chicken had seen, and her progenitors had been outflying falcons for thousands of years. Well, at least the chickens which survived and bred did.

The falcon followed for some 600 meters and quickly realized pursuit was futile. Through the years, my falcons have gotten better; so have I, but I still can't get it right. There is always something I should have done better at each flight. After decades of the sport and thousands of similar experiences, I remember everything about that first flight. I realized then that we would chase them at every opportunity.

Schooler, his son, and the filling station guy had just seen one of the most unique spectacles in nature; a peregrine falcon falling through the air perhaps approaching 150 mph. They watched a native grouse that had evolved right where they lived skillfully avoid the attack and laugh at the world's fasting moving predator. No one moved or talked, stoics all, the cowboy way. But, when I pulled out a small leather lure with a part of a duck leg tied to it and threw it on the ground, the peregrine came out of the sky and landed in the middle of us while we were talking. I picked her up; they became very ecstatic.

In the intervening 55 years, I have flown other grouse species: sharptail, sage grouse, and greater prairie chickens. Dogs and occasionally horses have joined the team. Dogs rapidly became an essential. Running dogs through native pasture, finding, holding, and flying a falcon at native grouse brings me something I can't explain; it is something more than is explainable by the physical activities involved. It is something very few poets could explain; like standing around a campfire — somehow the warmth of the campfire you feel can't be explained by the physics of burning a log. There is something else going on, something primal.

There is a cost these days to being an old falconer or other naturalist: I can remember things. I can remember when there were so many chickens in Schooler's field, releasing a falcon was difficult. Today, there are none.

I don't remember the double-pole power line right between the grassland and the grain serving the enormous wind power fields dotting the landscape. I don't remember this land being parceled and broken with fracking rigs, traffic, wind, noise and dust. Is that progress? I visited there recently, and I wished I hadn't. I should have left my memories to rest in peace.

Science tells us 90 percent of the lesser prairie chickens are gone from this earth, and where they are gone, most or all the confederate species that existed in Coronado's sea of grass are reduced or gone as well.

We know how to fix this. There are ranches that have, and they have healthier grass, cows and wildlife. Don't my grandkids have a right to experience things like native grouse that laugh when they are flushed from beautiful unmodified prairie? For 20 years, government at all levels has been thinking about, talking about, planning about lesser prairie chickens with little effective results. Now we have to engage and actually implement what we know works, or all we do is chronicle the end of this species. We know what to do; it just takes resolve.

©Photo by Kitty Rodehorst Hanna

Fool's Hens—And the Fools Who Hunt Them

Chris Madson

Dusky grouse play by their own set of rules

Two chances on two birds: the yin and yang of dusky grouse hunting.

Flick the Brittany and I started almost at treeline, working our way down a broad mountain ridge sparsely covered with scrub lodgepole pine on top where the soil was little more than gravel, dense spruce and fir on either side. We'd walked half a mile when Flick slowed down and went up on his toes. I followed his intense gaze and saw a male dusky grouse in the dense limbs at the base of one of the lodgepole clumps. He was walking slowly away from the dog, put-putting in mild alarm. Flick pointed, moved a step or two as the bird moved, pointed again, relocated again, the grouse drifting around the edge of the clump, the dog responding ever so carefully.

I lengthened my stride to get between them, my thumb on the tang safety and the little 20 gauge at the ready. The bird decided, at last, that he wasn't going to be able to walk away from this dual threat and flushed.

I may not be quite as fast with the gun as I once was, but I'd guess he hadn't gone 10 yards when the barrels caught up with him. Just as I pulled the trigger, he took a sharp right turn around the lodgepole thicket. A shower of needles drifted downwind as Flick ran over to check on the result, disappearing around the trees, then re-appearing with a disappointed look.

Anyone who's tangled with ruffed grouse in the Lake States knows that evasive maneuver — the suggestion of a straight line of flight, then the instant bank around the nearest screen of vegetation, as if the bird has a perfect plot of your line of sight. He vanishes at the instant you slap the trigger; a shower of leaves and twigs settles to the ground . . . and you go on, the dog looking back at you, a little disgusted with your performance, then returning to the business of finding more scent.

Which is what we did. Twenty minutes later, we were in a stand of ancient spruce with an understory of the little green-stemmed herb they call grouse whortleberry, for good reason, since, in season, the birds dote on the leaves, stems, and berries. Flick was out of sight up the slope as I picked my way along a game trail and came, suddenly, unexpectedly, nose to beak with two young grouse who were strolling my direction. They stopped. I

Photo by Chris Madson

stopped. Maybe ten feet between us. I took the shotgun off my shoulder, held it at port arms, and stepped forward, ready for the explosion.

They turned around, walked up the trail ten feet, and stopped. I advanced, trying to look menacing, ordering them to fly. They walked ahead of me, bobbing their heads and put-putting to each other while I did my best to convince them to fly while keeping my feet under me for what I knew would have to be a quick shot. We went 50 yards up the trail this way until we came to a huge deadfall. The bole of a giant spruce had finally cracked and toppled, bringing down a tangle of branches and smaller trees, a brush pile that was impenetrable for anything bigger than a grouse. The two bent down and disappeared into the pile. I whistled for Flick, and, just as he appeared, I heard the sound of wings on the other side of the deadfall where the slope steepened and fell 1,000 feet into a heavily wooded canyon. I had no idea where they'd gone.

A high-risk strategy, I thought, this business of walking ahead of a predator until you're out of sight, THEN flying. It's why they call them fool's hens, I reflected, but, on further consideration, it occurred to me that they might not have been the fools in our encounter.

Most serious ruffed grouse hunters I know back East wait for the leaves to fall before they load up the dog and head for the aspens, rightly concluding that it's easier to hit a flying bird when you can see it. The leaves never fall in dusky grouse habitat. There are nearly always screens of spruce and pine available to hide a dusky's flight when he decides to fly and a remarkable amount of shrubbery, low branches, and deadfall to protect him when he prefers to walk.

I once thought that a dog simplified this problem a little. A dusky grouse may never have met a human, but he's had plenty of experience with coyotes, bobcats, martens, long-tailed weasels and other ground-based hunters. For that reason, a dusky grouse is more likely to fly when pursued by a dog than by a human.

Trouble is, the bird will nearly always run a bit before he flies, which often means he sets sail out of sight, disappearing into the timber with remarkable speed, often down a steep slope, leaving the hunter with no mark for a follow-up. This walk-before-I-run tactic is frustrating enough for a flushing dog— it can almost ruin a young pointer.

Not all dusky grouse are so touchy, of course. Since they've learned that coyotes don't climb trees, they often flush just ahead of a dog and fly up to the nearest available branch, maybe 15 feet off the ground, maybe 50, where they perch calmly to study their pursuers. I've thrown rocks and branches at them to get them to fly, even shot gunned the branches on which they sat, hoping to get a chance at a flying bird with the second shot. Generally, they


Photo by Chris Madson

just bob their heads and move closer to the trunk. When they do fly, I'm usually left with a renewed appreciation for just how hard a 40-yard snap shot at a bird flickering through the canopy of a spruce forest can be.

Shooting any grouse in timber is a specialized craft, calling for an ability to ignore intervening leaves and branches and, above all, a quick gun.

A number of years ago, a friend of mine and I were hunting dusky grouse high up on the east face of Laramie Peak in eastern Wyoming. We'd covered a lot of country without seeing any grouse — not an unusual experience — when we walked out into a stand of mature ponderosa pines with an understory of grass.

To my amazement, a young dusky grouse strolled out in front of us, like a banty hen on a farmhouse lawn. Cody and I spread out five yards and walked toward him. He walked ahead, not hurrying, a little unsure of just what we were. We followed him for 50 yards or more until he came to a downed pine, the bole of an old patriarch that had given in to the last storm, three feet in diameter if it was an inch.

The grouse, feeling cornered next to the obstruction, finally jumped. I was ready for him, smoothly mounting the gun as Cody searched for his safety. I took the bird as he cleared the log and banked to head downhill. As we walked over to pick him up, Cody shook his head and, with a twinkle in his eye and a barely concealed smile, took me to task.

"That was really cold, Madson."
"What do you mean?" I asked, more than a little surprised.
"Shooting him like that."
"Like what?"
"He was just hopping up on that log, and you shot him."
"He was flying."
"He was hopping."
"He was headed down the mountain."
Cody chuckled.
"Were his wings spread?" I asked.
Cody had to admit he'd opened his wings, "But just for balance. He was jumping up on that log."
"Were his feet off the ground?" I pressed.
"Barely."
"Bird with feet off the ground. Wings spread. Where I come from, they call that flying."

We argued all the way down the mountain, Cody stubbornly refusing to recognize the brilliance of the shot, in the best tradition of a hunter needling his partner. He went home with the unshakable conviction that he'd scored points with his rapier wit.

But I went home with the bird.

Dusky grouse are moving targets in more ways than one. As a very general rule, adult males tend to stay high on the mountain year-round. Many hens head downhill after courtship in the spring, sometimes moving clear out into the sagebrush grasslands below the timber to nest and hatch their broods. I suspect this migration has to do with the abundance of insects they find at lower elevations — like most other young birds, dusky grouse chicks require a high-protein diet in the first six or eight weeks of life, which means bugs.

As the nights cool off and the youngsters learn to fly, the hen leads them uphill into the timber where they spend the fall and winter, feeding on berries and a variety of green stuff at ground level until the snow flies, when they move into the trees to eat the tips of conifer needles. Unlike most other wild things, a dusky grouse generally comes out of the winter weighing more than when it started.

The timing and intensity of this uphill movement varies with individual hens — when they hatched their broods, what food they find at lower elevations, and, apparently, their general mood. I know it's happening, and I try to allow for it, but there's a lot of real estate on a western mountainside, and, in most years, not all that many grouse.

The practical way of determining how high on the mountain the broods have gotten on any given day is to drive the back roads and scout. I've done that, but it always feels a little like cheating, since it can quickly devolve into road hunting. Left to my own devices, I pick a ridge where I've seen birds before and walk it with the dog. On many days, this approach only confirms a basic ecological truth about the western mountains — year in, year out, they're not all that productive. It takes thousands of acres, spread from the sagebrush to timberline, to support a population of dusky grouse. It's possible to spend a lot of time and boot leather looking for them without much finding.

I'd like to believe I've developed a sense of the vegetation the birds prefer — the corners that have a little more moisture and support the whortleberry and other plants I find in the crops of the occasional bird I put in the bag — but, when I visualize the places I've actually met dusky grouse, they run the gamut from heavy, mature spruce timber to sparse second-growth limber pine and lodgepole, stands of ancient Doug fir, the edges of meadows, forest openings whose gravel and rock support no more than a few wisps of grass and broad-leafed plants. Dusky grouse are where you find them. About the only rule of thumb for locating them that occasionally helps me is to look where I saw them last year.

As I consider this litany of frustration, I find myself wondering why I bother with dusky grouse. I guess the most obvious reason is that, where I hunt them, the season opens earlier than it does for any other game bird besides mourning doves. By the time September arrives, the dog and I are both anxious to get on with any activity that may yield a bird.

But, in spite of the frustrations involved, there's much to be said in favor of the pursuit of dusky grouse. They may not be as gaudy as a ring-necked pheasant, but they have their own, more subtle beauty, a medley of slate blue and gray that echoes the shade under the big trees that shelter them through much of the year. They're a white-meat bird nearly the size of a young pheasant, with the delicate flavor of quail, a prize on the table.

Mostly, though, I hunt them because of where they live — the black timber and lonesome ridges of the Rocky Mountain West. It's a way of getting to know the high country unlike any other. A way of seeing. Feeling. Such places are a pleasure and an education in their own right.

The birds are a bonus.

A Place of My Own-Revisited

Terry Z. Riley

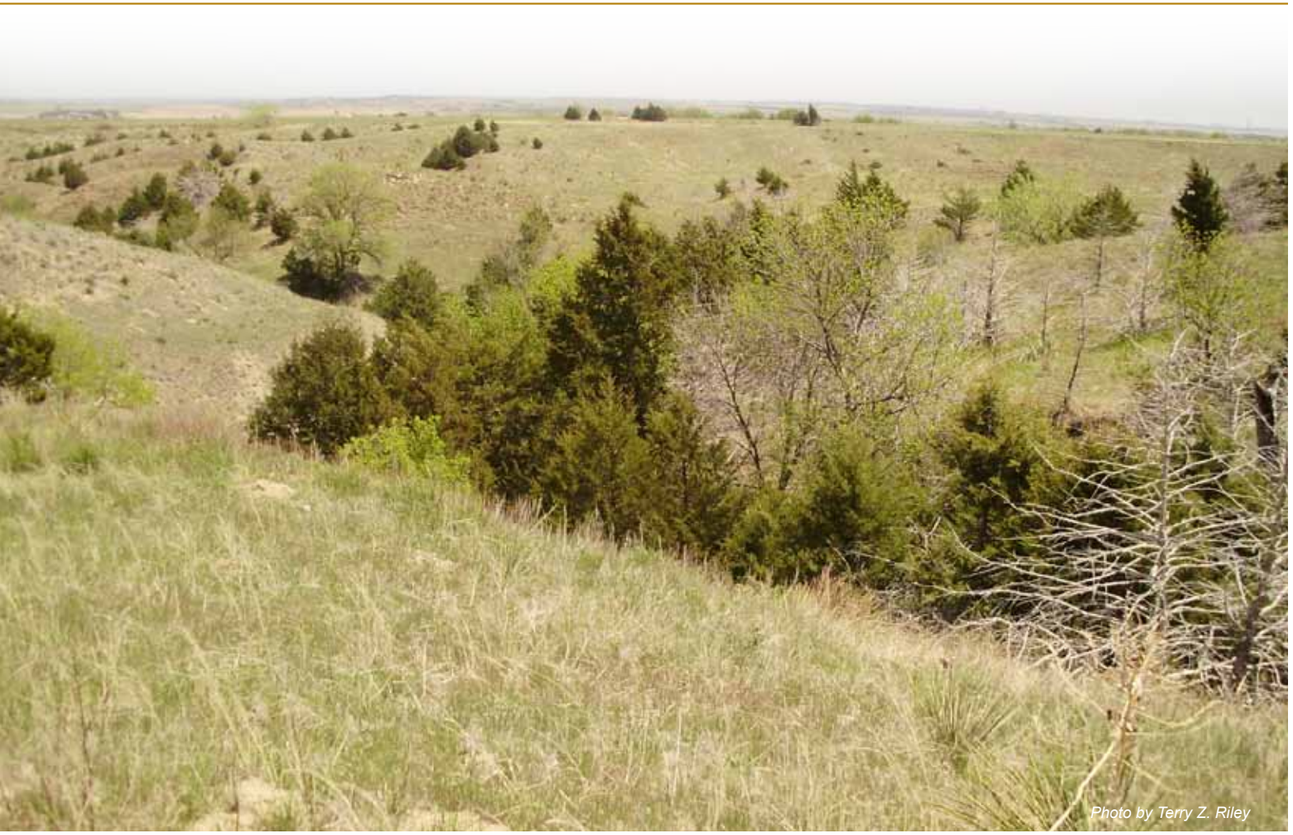

Photo by Terry Z. Riley

Owning your own piece of land will open many doors you never knew existed, and more importantly, it might even provide opportunities to apply conservation principles on the land and see the results of your attention and labor. In 2004, my wife and I purchased our first piece of property near North Platte, Nebraska. I wrote about that initial experience in the fall 2006 *Grouse Partnership News* (Volume 7, Number 1). In that article, I mentioned that our 320 acres of land was in grouse country, but most of grouse we saw in the area were on land several miles away. My brother and I flushed one greater prairie-chicken in my little 13.3-acre piece of CRP the first year we hunted our property. By the time I realized it was not a hen pheasant, it was out of shotgun range.

Now that I have had many years to manage habitats on our land, I have learned much more than I ever thought I would. By far the best experience has been using livestock grazing to heal the land. When we first purchased the property, it was obviously overgrazed. The soils are highly erodible and livestock use had created deep trenches leading to and from our two water sources. That first year, I surprised a cow completely hidden in one of those trenches. I realized right there and then that we had to make dramatic changes on how cattle grazed our land.

First, we removed the cattle and rested the land for two years. This provided time to evaluate the health of the land. Water distribution was limited to a water well with a reliable electric pump on the south end of the property, and a windmill powered the water well on the north end. To improve water distribution, I entered into a contract with the USDA's Natural Resources Conservation Service (NRCS). Funding for our water improvement from the Environmental Quality Incentive Program (EQIP) enabled us to install two pipelines and three new water tanks. These new improvements distributed the water to livestock and wildlife across our property. We also used funding from the EQIP contract to plant wildlife-friendly shrubs, including chokecherry and wild plum, on two areas and to install a division fence that gave us three pastures rather than just two. We also built a fence around each of the shrub planting to exclude cattle.

Historically, 80- to 120-head of livestock annually grazed our land. After the two years of rest, we negotiated a grazing lease with a local rancher to graze our land with only 25-head of livestock from June 1 to October 31. After that grazing season, we reevaluated the health. That evaluation showed us that 25 head grazing the land for five months continued to improve its health. The fourth year, we increased the cattle numbers to 30 head and kept the grazing period at five months. Again, the health of the land continued to improve. Over the years we have increased the number of cattle that we allow on the property to about 40 head. There still is little evidence that the cattle have grazed much of the forage on our property, but we like what we see as far as how the land health is going. The income from the grazing lease provides us enough to pay our property taxes, the utilities for the water well and a nice annual vacation with my wife.

Another problem we encountered was the invasion of eastern redcedar across our property. The cedar trees reduced the amount of forage but added diversity to our vegetation and wildlife. Mule deer and white-tailed deer use the trees for hiding cover, and a variety of native birds use the trees for nesting and the seeds for food. Some cedar trees are good, but there were way too many. In 2009, we negotiated another EQIP contract with NRCS for a prescribed burn on our property. Nebraska Game and Parks and Pheasants Forever/Quail Forever staffs assisted us with the burn. It took an entire day to get the job done, and the fire did not kill as many cedar trees as we had hoped. We also cut cedar trees each spring with a chain saw. We found that the birds that eat the cedar seeds also like to perch in the trees that were killed by the fire. Now we have many new seedlings coming up around these burned skeletons. We would like to burn the property again, but that seems to get more difficult each year.

Hunting has been very good for us. The mule deer population has increased significantly, and the bucks are getting larger antlers each year. We have had as many as five family members and friends hunt each fall and everyone returned home with a nice buck. The Nebraska Game and Parks Commission manages the entire region in which our land is located as a muledeer conservation area. The special regulations are designed to improve the mule deer herd. Our experience with the results of this management is very positive. Disease and liberal whitetail doe hunting seasons appear to be keeping the population at a manageable level. We rarely see whitetails on the property.

When we burned our property in 2009, we had another surprise: we observed a single hen wild turkey. Before that time, we had never seen any evidence that turkeys used our property. The next year, I hunted turkeys in the spring and bagged a nice tom. Since that time, the turkey population has grown but fluctuates from year to year. We have taken as many as four spring turkeys, but once in a while, we only get one.

While I was hunting turkeys on our land in May 2018, I observed a bull elk lying on a grassy hillside among some cedar trees. The next year, four bull elk walked to within 35 yards of my turkey blind. We have seen elk tracks around our property for the past four years, and we hope to see many more. Elk hunting is very restrictive in Nebraska, particularly for nonresidents. We hope the Nebraska Game and Parks Commission will provide more opportunities in the future for nonresident landowners to take advantage of these majestic animals.

In 2007, we enrolled a small portion of our land in the Conservation Reserve Program (CRP) for 15 years. This parcel had been enrolled in the CRP before we bought it, but the contract had expired. I worked with the NRCS and the USDA's Farm Service Agency (FSA) to disc the field and inter-seed some more desirable herbaceous wildlife plants. Also, I constructed a fence around the field to exclude cattle. Halfway through the term of the contract, FSA asked me to do some mid-contract management. I disked the land again and planted more wildlife-friendly seeds, including seeds for pollinator-friendly plants. The field attracts pheasants and bobwhite, and we have put a few of each in our game bags.

We have seen flocks of greater prairie chickens flying near our land in January while hunting pheasants and quail, and we have heard the males on distant leks in the spring. In 2019, a flock of about 10 birds used our CRP field. Just seeing them on our property has made owning and working our own land one of life's indescribable pleasures.

Owning our own land has changed the way we hunt for game birds and deer. For decades, we hunted on public land. That often meant lots of other hunters and wary or sparse game populations. Now that we have a place of our own, we rarely see other hunters and gamebird and deer populations vary more on weather conditions than on hunting pressure.

Each year we learn something new about our land and the landscape around it. Our neighbors are always helpful and very friendly. We enjoy staying at local motels and exploring nearby restaurants whenever we visit our land. The entire experience of having my own place has enriched my life, and my son finds time every year to come up from his busy job as an assistant professor at a university in Texas to share the experiences with me. We look forward to sharing many more memories on a place of our own.

Prescribed Burning

to Restore Sharp-tailed Grouse Habitat in Northeastern British Columbia

Alicia Wood

Photo by Alicia Wood

In the world of sharp-tailed grouse, the province of British Columbia is typically known for its populations of the Columbian sharp-tailed grouse. However, being located on the eastern side of the Rocky Mountains, northeastern BC has the unique distinction of being the only place where the plains subspecies (*T.p. jamesii*) of sharp-tailed grouse can be found in the province. The Peace Lowlands is a 1.5 million ha area, bisected by the Peace River, that is comprised of a mixture of aspen parkland, grasslands, shrub-steppe ecosystems as well as expanses of agricultural development.

Historically, and as indicated by local place names such as Rose Prairie and Lone Prairie, the Peace Lowlands included open canopied, native grasslands and shrub-steppe ecosystems, which was maintained through recurrent fire events. These fire events included cultural burning by local First Nations, prescribed fire conducted by ranchers and landowners, and wildfire events, resulting in an open, prairie-like habitat that sharp-tailed grouse exploited. However, as the area became more settled, wildfires were suppressed, prescribed fire decreased, and industrial pressures such as oil and gas development, forest harvesting, ranching, and crop farming expanded, reducing the open habitats relied upon by sharptails (lovingly referred to as "chickens" by the locals). In some cases, these disturbances increased habitat for sharp-tailed grouse – specifically the clearing of aspen parkland to increase cattle grazing opportunities – resulting in the regeneration of native, mixed grass-shrublands.

Since 2003 I have been fortunate enough to conduct research and monitoring of these quirky birds in northeastern BC, including investigating measures of nest success, brood survival, and habitat selection in a couple populations of sharp-tailed grouse in the Peace Lowlands. Through annual lek surveys I have seen lek attendance decline, long-standing leks disappear and a general reduction in sightings. Sharptail habitat that was previously occupied has been converted into cereal crops, lost to the encroachment of aspen and increasingly tall shrubs and destroyed by the construction of oil and gas well sites and access roads.

Since the 1950s, wildfires have been suppressed across BC, resulting in a significant build up of fuels throughout most of the province and subsequent destructive fires in recent years. In the Peace Lowlands, fire suppression has resulted the advancement and encroachment of deciduous species, such as aspen and balsam poplar, into previously fire-maintained grassland and shrub-steppe habitats. Previously referred to as "weedy species" for their quick growth and regeneration, aspen is now considered a commodity in the forestry sector in the Peace Lowlands, which has resulted in diminished support by government for the use of prescribed fire to maintain ecosystems. As such, ranchers and conservation groups have been unable to use prescribed fire to maintain open habitats and encourage grass, herb, and low shrub growth on public land.

In response to the declines in sharp-tailed grouse lek attendance and the disappearance of the grass-shrubland habitats I have observed since 2003, I initiated a program in 2020 to restore and enhance sharptail habitat in the Peace Lowlands using treatments such as manual brushing and prescribed fire. When prescribed burning is not feasible on public land and sites can be accessed by machinery, manual brushing or mulching is being proposed to decrease willow height and density in areas surrounding leks. Due to the lack of support for conducting prescribed burning on public lands, I have focused my efforts on collaborating with landowners to conduct prescribed burning on privately owned land, with the objective to reduce the density and cover of aspen, poplar, and willow in key habitats used during the breeding season. Since program initiation, multiple landowners have joined the program to work in partnership to implement prescribed burns on over 1,000 ha of sharp-tailed grouse habitat.

In a predominantly industry-driven region such as northeastern BC, we are fortunate to have large-property landowners that are committed to wildlife conservation and equally as lucky to have organizations such as the Habitat Conservation Trust Foundation to assist in funding conservation projects on private land. Landowners do not receive any financial benefit for their efforts to restore sharp-tailed grouse habitat but support habitat restoration programs because they have seen firsthand the significant benefits to wildlife that occur because of prescribed burning.

In May 2021, we conducted our first habitat restoration project on the 2,000 ha Preston property in the Peace Lowlands. The Preston property is a unique ridge, approximately 3 km long that, at its peak abundance had three individual leks, which were supported by surrounding mixed grass-shrub habitat for nesting. The first lek, originally discovered in 2008, consistently had between nine and 18 males on the lek annually until 2019, when only two males were observed on the lek and has not been active since then. Between 2011-2014, an average of 27 males were collectively observed on the three leks, and then male attendance decreased to 11 males between 2015-2021. The property, which had been previously burned by the landowner approximately 15 years ago, was becoming overgrown with dense patches of two- to five-meter tall aspen and willow thickets, resulting in low residual grass and shrub cover for nesting. Further, low shrubs were encroaching in on lek sites and reducing the line-of-sight for displaying males. To address the diminishing habitat, using a combination of aerial- and hand-ignition techniques, approximately 400 ha of prime sharptail lekking, nesting, and brood-rearing habitat was burned in May 2021.

The prescribed burn, which was implemented with help from the Preston family, neighboring landowners, and the British Columbia Wildfire Service crews, resulted in an intense ground fire that removed dead, standing shrubs, killed regenerating aspen, and decreased shrub height and cover around the leks. Within one week, post-burning, grass shoots were visible across the site and within three -months herbaceous vegetation growth was between 30 to 60 centimeters in height. Vegetation characteristics around the three lek sites and random, unused sites were measured pre-treatment and will be re-measured one-year post treatment in May 2022 to assess burn effectiveness at achieving habitat objectives, specifically decreasing woody vegetation height and cover. Annual lek surveys will also be continued to measure lek attendance post-treatment.

After this year's success in restoring critical sharp-tailed grouse habitat, I look forward to working with additional landowners to conduct prescribed burning in 2022 in two other sharp-tail populations in the Peace Lowlands. Combined with prescribed burning initiatives, approximately 38 ha of manual brushing is also scheduled to be completed this fall around three lek sites located on public land and additional brushing prescriptions are being developed.

The success of this project can be attributed to the conservation-minded landowners in the Peace Lowlands and the support of funding groups such as the Habitat Conservation Trust Foundation, the North Peace Rod & Gun Club, and the Society for Ecosystem Restoration in Northern BC.

Photo by Alicia Wood

A POINT ON PRAIRIE GROUSE

Chris Madson

Sometimes, prairie chickens and sharptails decide to hold for the dog

It was the last hour of the last afternoon of the last day of the Nebraska upland bird season, January 31, the leaden sky overhead threatening snow and a 30-mile-an-hour wind out of the northwest with an edge like a straight razor. I wouldn't have been out … except that it *was* the last day, and Flick the Brittany had insisted on one last hunt before we began serving the six-month sentence of town and chores that would begin on February 1. So we braved a three-hour drive in the wee hours of the morning on roads varnished here and there with black ice and swept with phantasms of snow ghosting up out of the ditches, coming at last to several familiar sections of CRP, broken here and there by strips of corn stubble.

The pheasants had been the way pheasants generally are on the last day. We'd seen 70 or 80, most of them as tiny specks flying over the next horizon. Flick had pinned two careless roosters over the course of the day, and as I followed him downwind along a low terrace thick with switchgrass, my thoughts were turning to a warm truck and a hamburger when something grabbed Flick by the nose and spun him 180 degrees into the wind.

I cracked the Guerini to make sure there were still two live rounds in the chambers— this was no time to drop the hammer on a spent shell— flexed the fingers of my right hand to get some blood back into them, and walked toward the point, hoping this was a rooster and not some conniving hen hoping to out-maneuver the dog.

Over the years, I've often found that it's unwise to depend too confidently on a prediction of future events. This is a lesson that has general application to the business of life but is especially relevant in the art of wingshooting, a lesson I ought to have mastered about 50 years ago, in this context, at least. Still, when I step up to a pointing dog's ear, I bring certain expectations, which are often unwarranted and generally lead to failure.

This was one of those moments. As I took the first step beyond Flick, certain that a rooster was about to explode out of the grass, there was a giant rush of wings and ten or 15 sharptails erupted in a shower of snow. The gun started to my shoulder of its own accord while I fought the temptation to shoot into the middle of the flock, almost impossible to resist since I'd been expecting a single target. Then, the birds slowed and the wind faded out of consciousness and time itself paused as I focused on one shape at the edge of the flock, saw him, really saw him, managed a smooth swing through him … and saw his wings fold. Flick was already on his way as the gun came down, and I watched him pick up the bird as the rest faded toward the gray horizon.

Good dog, good dog …

To this day, I don't know quite what to make of that point. The fields I was hunting that day had seen a lot of dogs and men over the preceding three months. Even the hen pheasants had learned to flush at 300 yards and fly over the next rise before landing. Most days, as discouraging as it is to admit, pheasants hold tighter than sharptails and prairie chickens. By rights, the sentry in that flock should have seen me as I came over the hill a quarter of a mile away. He should have taken off at that first sight, leading his brethren into the next county, chuckling as they went, to add a dose of insult to the injury of their early departure. That's what prairie grouse do.

Except when they don't.

I could make a fairly convincing argument that, most days, a serious prairie grouse hunter would be better off without a dog. In my experience, both sharptails and prairie chickens spend most of the fall in sizeable flocks with many suspicious eyes always watching for approaching danger. It's not unusual to see a sharptail perched in a shrub or low tree, a sentinel for the birds on the ground. Finding prairie grouse isn't nearly as tricky as finding pheasants or quail; the challenge is getting close enough for a shot. A dog ranging out ahead often does little but increase the distance at which the birds flush, particularly when the dog in question is a member of a wide-ranging pointing breed who can bump a hair-trigger flock before he even catches their scent.

And, again in my experience, prairie grouse are much more sensitive to wounds than the typical pheasant. A crippled sharptail is much less inclined to run when he hits the ground, and the ground he hits generally has thinner cover than most pheasant coverts. A shooter who gets a good mark on a downed bird is likely to find it without canine assistance.

But I'd rather hunt birds without boots than without a dog, and it was clear that, on that one January afternoon, at least, I'd have walked past the sharptails without Flick. I suspect the weather was part of the reason we got within gun range. The birds were hunkered down in a thicket of switchgrass next to the corn stubble where they had fed that morning, and we came up

Photo by Chris Madson


Photo by Chris Madson

on them almost silently, just one man, one dog, no talking, no whistles, an absolute minimum of noise and that tiny bit covered by the sound of the wind.

There at the end of the season, Flick and I had worn off most of the rough edges. He kept track of me without need of command, and, when I decided to change direction, I could catch his eye and cue him with a hand signal. The stealth approach was a good way to catch a pheasant unawares, even better for sharptails.

Common wisdom is that prairie grouse hold best early in the fall, when the birds of the year are young and the big flocks haven't yet gathered. For that reason, most prairie states open their seasons long before they allow hunting for other upland species. Prairie grouse seasons in Nebraska, Wyoming, and Montana open on September 1; Kansas opens its greater chicken season on September 15; South Dakota opens on September 18 this year; North Dakota, on September 11. Colorado opens its sharptail season on September 1, its greater chicken season on October 1. Minnesota opens its sharptail season on September 18.

So, depending on the state, prairie grouse may be legal game for almost two months before pheasant and quail seasons open, when broods of young birds are less flighty. A good time to wear the tallow off hunter and dog and take advantage while advantage is to be had.

I recall a cool, sunny September opener in southeastern Wyoming— Britt the Brittany and I left the truck promptly at 7:00, with the sun standing on the eastern horizon. Britt was young and inclined to bump birds, but on this morning, he took one large swing out into the grass . . . and froze. I thought he'd probably cornered a badger but walked out to check. He was adamant, and, as I stepped in front of his nose, six or seven sharptails erupted, no more than 15 yards away. It was the only time I've taken a double on prairie grouse. Early sharptails— a special time on a special bird.

Come November, the coveys of sharptails and chickens are large and suspicious. If prairie grouse behaved like bobwhite quail, it might be possible to spook one of these flocks to break it up into smaller, less daunting pieces. Alas, prairie grouse are endurance fliers, unlike the white-meat quail and pheasants. When a flock takes wing, it may not come down for miles. When one of my Brittanies points a sharptail or chicken this time of year, it's almost never part of a sizeable flock.

Which is not to say it will be a lone bird. Three times last season, I walked in on solid points to see a single prairie chicken flush just out of range and let down my guard, only to have one or two more birds flush ten yards closer. I suspect these small bunches were parts of larger flocks that had been flushed a mile or two away and spread out over the landscape. The first time I missed the opportunity to cash in on one of these "hangers," I reminded myself that these grouse are social birds, not often caught on their own. With that admonition in mind, I have no explanation whatsoever for my failure to mount the gun on the next two occasions.

If there's any good news in prairie grouse behavior for the owner and operator of a pointing dog, it is that chickens and sharptails would much rather fly than run. I can't recall ever following one of those point-relocate-point-relocate sequences and finding a prairie grouse at the end of it. Even bobwhite quail are more inclined to slip away from a point than the typical prairie grouse.

And since these birds seem able to fly forever, there's not much chance a green pup will ever run under a tiring bird and catch it. A couple of sprints after a disappearing flock will convince an errant youngster that chasing is a fruitless exercise.

Compared to the postage stamp of real estate the average rooster pheasant calls home, the range of a sharptail or prairie chicken is gigantic. When a really serious blizzard roars out of the north, a sharptail may move 40 or 50 miles to find shelter in a prairie bottomland while the pheasant quietly freezes to death within a few hundred yards of where he hatched. For that reason, I find it more than a little strange that, where I see prairie grouse on a given patch of cover one week, I may well see them there again the next. These core areas shift from year to year, as they do with most upland birds, but it's worth remembering an encounter early in the season because there's a decent chance it won't be the last in that spot. Whether they hold to a point depends on the delicacy of the dog's work, their mood, and the luck of the moment.

I've seldom hunted prairie grouse as a main course. My encounters with them have always been an unexpected aperitif at the beginning of a long walk after pheasants on the Great Plains or as dessert at the end of one of those days. I wish I'd been around before the plow to see the flocks in their thousands, sweeping low across the prairie on a December evening. As it is, the birds that remain are a reminder of a wilderness that was— which is enough, in and of itself. And, when they rise in front of the dog, the memory of those distant times rises with them and reaches out to touch the present— the birds, the dog, and the hunter suspended in time. Some things are slow to change. Some of the best things …


Photo by Chris Madson

Impact Of Wildfires on Sharp-Tailed Grouse and Greater Sage-Grouse in Washington State

Michael A. Schroeder

The summer of 2020 in northcentral Washington was wonderful for hiking in the mountains and enjoying wildlife. The record-setting wildfires of 2014 and 2015 were a distant memory and the air was mostly smoke-free. All of that changed the night before Labor Day when the wind picked up and a new round of wildfires started. The largest of these fires was the Cold Springs Canyon/Pearl Hill fire. At 410,000 acres, it set a record as the largest wildfire in Washington State history. The fire burned so fast it was able to cross a stretch of the Columbia River that was a quarter mile wide. It burned many houses and chased me out of my own. When the wildfires of 2020 were added together, they burned roughly 50 percent of greater sage-grouse and sharp-tailed grouse habitat in the state of Washington.

One of my goals in spring 2021 was to examine the impacts of wildfires on grouse. Monitoring is usually done by counting grouse on their traditional display grounds (leks). To provide a useful comparison, I counted birds in areas that were burned and in areas that were not burned. For greater sage-grouse, counts on leks declined 22 percent in burned areas and increased 4 percent outside burned areas. For sharp-tailed grouse, counts on leks declined 77 percent inside burned areas and increased 13 percent outside burned areas.

Although it is clear that both species were impacted by wildfires, it is not clear why sharp-tailed grouse appeared to be more impacted than sage-grouse, at least in the first year following a fire. There are several ways that grouse can be impacted by wildfires. The first way is the most obvious – direct mortality. Direct mortality has been observed in many wildfires, but it is not clear why this would impact the species in different ways.

Another possible difference between the species is their behavior. Greater sage-grouse typically display on leks in open areas; in northcentral Washington, many of these leks are wheat fields. In contrast, sharp-tailed grouse display in grasslands, often with substantial cover. Observations in spring 2021 illustrated some of this variation. I observed sage-grouse displaying in burned areas with little or no concern for their apparent vulnerability. In contrast, sharp-tailed grouse observed in spring 2021 appeared to be very skittish. They were easy to flush from a lek and reluctant to return. It is possible that this behavioral difference could explain some of the differences in lek counts.

The largest impacts to grouse from wildfires are probably long-term. Research on habitat has shown that fires can increase the abundance of invasive species like cheatgrass. As cheatgrass increases in abundance, the suitability of habitats for grouse declines. This declining suitability is likely to affect nesting and brood-rearing success. Because most of the fires in 2020 occurred after the nesting and brood-rearing season, many of the fire impacts will not be apparent until 2022.

2015 was also a significant fire year in the range of sharp-tailed grouse in Washington, primarily as a result of the Okanogan Complex fire. Grouse populations had not recovered to pre-burn numbers even four years after the fire. If a similar delay occurs following the most recent fires, grouse populations will be in trouble for years to come. This may be something we have to get used to. The fires of Washington State and other western states show that risk of wildfires is going to keep increasing.

Threetip sagebrush resprouting following wildfire in Washington State.

Sharp-tailed grouse displaying at lek in grassland in Washington State.

The Passing of the Heath Hen

A study in extinction

Chris Madson

On the morning of March 11, 1932, ornithologist Alfred Gross rolled out of bed at his customary 3:30 a.m. to attend a final performance. He walked to a wooden blind at the edge of a grassy clearing on a Martha's Vineyard farm, crawled inside, and waited for first light. About an hour later, the last heath hen on earth slipped out of the scrub oak onto the grass and began his courtship display, oblivious to the fact that he had no rivals to conquer and no hens to win. For four years, he had kept the spring appointment on the lek and had met no companions there. Gross took photographs as the light improved and meticulously noted the bird's behavior. Then, as the sun broke over the eastern horizon, the cock finished his last display, stepped back into the scrub, and disappeared forever.

Perfection is always a scarce commodity, but our dealings with the heath hen must qualify as one of the most perfect assaults ever mounted on a species. When our forebears hit the beach in Massachusetts, the heath hen was one of the coast's most abundant upland birds. Later taxonomists recognized it as a subspecies of the greater prairie-chicken, and the heath hen shared its western cousin's taste for grass. Although we're inclined to think of the Eastern Seaboard as a thin strip of beach against a backdrop of endless forest, there were meadows and stands of scrub oak and pine along the coast, maintained by fire like the tallgrass prairie of the Midwest.

The heath hen moved through these savannahs from the Carolinas to New Hampshire. In the winter, the birds depended on acorns; in the spring and early summer, they ate insects and greens; in the late summer and fall, they stuffed themselves with every wild fruit they could find, from blueberries to rose hips. They were probably more comfortable in timber than western prairie grouse, but they seldom strayed too far from a clearing. In the spring, they rendezvoused on display grounds, or leks, just like prairie chickens, the males dancing to intimidate each other, the females showing up from time to time with a great show of indifference to choose their mates, usually the dominant males at the centers of the leks.

Judging from Gross' description, their calls were very much like the greater prairie-chicken's: "The sound was accented on the second syllable or the first part of the second and then gradually diminished in intensity . . . The booming was interspersed with henlike calls." Gross' permanent blind became a favorite display site for the Martha's Vineyard birds because, he wrote, "the resonant wooden roof" amplified their stamping.

A chicken-sized bird with a taste for prairie openings couldn't have escaped the notice of English colonists for long. Fifteen years after the Plymouth landing, one hunter wrote: "Heathcockes and Partridges be common: he that is husband, and will be stirring betimes, may kill half a dozen in a morning. . . . The flesh of the Heathcockes is red, and the flesh of the Partridge white, their price is four pence a piece."

The 19th-century naturalist Thomas Nuttall found a report from Governor Winthrop of Plymouth Colony that reflected the heath hen's numbers, if not its popularity: "They were so common on the ancient brushy site of Boston, that laboring people or servants stipulated with their employers not to have Heath Hen brought to table oftener than a few times a week."

A glut of heath hens wasn't a problem for long, however. It's possible that the clearing of farm land actually helped the species for a while, but persistent market shooting was more than the heath hen could survive. In 1811, the ornithologist Alexander Wilson reported that, as human populations grew and grouse populations declines, the price of a brace of grouse in the market had risen to about $5. By 1840, the heath hen had disappeared from mainland Massachusetts and Connecticut; four years later, it was declared extinct on and around Long Island. A few birds lingered in the huckleberry barrens in eastern Pennsylvania's Pocono Mountains until 1869. Those sightings were the last recorded on the mainland.

The heath hen's plight did not go unnoticed. In 1791, the New York legislature considered a bill protecting heath hens from spring and summer shooting. In 1831, Massachusetts prohibited heath hen hunting from March 1 to September 1; in 1837, the heath hen season was closed entirely for four years.

These regulations had about the same effect as most game laws of the period. Many people weren't even aware of the restrictions, and, with no provisions for law enforcement, it wouldn't have made much difference if they had been posted on every fence post. The Massachusetts laws were particularly empty because each town in the state had the authority to set aside the closures.

In any case, the damage to mainland heath hen flocks had been done before most of the legislation on their behalf had been enacted.

Luckily, there was a flock of heath hens on the island of Martha's Vineyard off the coast of Massachusetts. Why they survived there is a minor enigma. The island had always been sparsely settled, and when the locals weren't tending their hard-scratch farms, they had been more inclined to fish than hunt. Whatever the reason, the birds hung on in the island's sandy grasslands and oak barrens, although they were apparently much depleted by the early 19th century. As early as 1835, John James Audubon talked to a local resident who said that, 20 years earlier, he was used to seeing as many heath hens in a day "as we now see in a week." Still, in the spring of 1890, 120 to 200 birds clung to life on Martha's Vineyard.

The assault on the heath hen was far more complex than it first seems. There's little doubt that overharvest was the key, especially with the demand for grouse in the rapidly growing markets of the Northeast. But other factors were probably also at work. While the initial opening of eastern timber and the availability of waste grain must have helped the heath hen, the long-term intensification of farming probably didn't.

Many of the heath hen's favored foods, particularly the wild berries, grew along the edges of grasslands. Clearing these brushy edges, combined with the impact of livestock browsing, must have reduced the berry crops they produced. There was almost certainly less cover for nests and broods. Grazing in woodlots would have cut down on the number of available acorns, a heath hen winter staple, as well as reducing the vigor of nut-bearing trees.

And there were pets. As early as 1840, cat depredations may have been having an impact on local heath hen populations. Audubon wrote that "we frequently meet with the remains of such [heath hen] as has been destroyed by the domestic cat which prowls the woods in a wild state."

Livestock also introduced another major threat to the heath hen — disease. Domestic chickens and turkeys brought over from Europe provided transportation for blackhead, a virulent and highly contagious pathogen among chicken-like birds. America's native grouse had never faced anything like it and proved extremely susceptible. Since the heath hen gravitated toward farmed clearings, it was particularly likely to feed over the dropping of domestic fowl and become infected. No one will ever know how much of the heath hen's decline was due to disease, but several observers reported sudden disappearances of local populations that sound suspicious.

Efforts to save the heath hen began with the first hunting closures in the late 1700s. Unfortunately, many of them may have done more harm than good. Since the heath hen and the Midwest's greater prairie-chicken were so similar, several well-meaning people transplanted the western subspecies into parts of the heath hen's original range. A transplant in southern Maine between 1870 and 1880 has forever after confused the issue of the heath hen's northern range limit. In 1902, the fledgling Massachusetts Commission of Fisheries and Game introduced three greater chickens to Martha's Vineyard. It must have seemed like a good idea at the time, but it makes any modern biologist cringe. The similarity between the two birds carried as much risk as potential benefit. There is a good chance that the western birds carried parasites and diseases the heath hen had not encountered for generations, if ever. And there is no doubt that the greater chicken was a grave threat to the heath hen's genetic fitness. The two cousins had adapted to different environments; the innate behavior that served a greater chicken well could easily doom a heath hen in the sand barrens of Martha's Vineyard.

As one species after another slipped toward oblivion, Americans entered the 20th century with a new appreciation of the fragility of wild things and wild places. John Howland, a native Vineyarder, proposed that a heath hen reservation be established on the island. Sport hunters and birders got behind the idea and raised enough money to buy 600 acres of the Vineyard's best habitat. The Commission of Fisheries and Game, financed by the hunters of Massachusetts, leased another 1,000 acres and the reservation was a reality. A full-time state game warden was assigned to the island; soon after, William Day was hired to act as gamekeeper on the refuge itself. Observers estimated the island population at 50 birds.

Day killed every fox, raccoon, skunk, hawk, and house cat he could lay his hands on, and the state forestry department watched the reserve to guard against fire. In eight years, the population had exploded — the state ornithologist estimated 800 birds; Day figured closer to 2,000. The commission trapped a few birds and moved them to Long Island and the Massachusetts mainland, hoping to establish a second population, but the transplants didn't succeed.

Then, in spite of the foresters' best efforts, a fire scorched 20 square miles of the reservation. The birds were used to dealing with fire, but it seems likely that many of the hens were already on nests. Observations on the display grounds the following spring showed that many hens had been lost. The cocks harassed the remaining females so intensely that they produced few broods that year. In the winter of 1917-1918, an invasion of goshawks out of the north took a heavy toll among the birds that were left. By the spring of 1918, there were only a hundred birds left, most of them males.

Biologists close to the reserve recognized the problems inherent in this decline. In 130, Alfred Gross wrote, "In the recent history of the heath hen, it was well known that there was a great excess of male birds. This abnormal ratio may have been brought about by some hereditary influence, but it is certain that this condition was aggravated by the fires that ravaged the island during breeding season. . . Other factors that played their part were the excessive inbreeding, which was destined to occur after the heath hen was restricted in range and to exceedingly small numbers of individuals. It was also found upon examination of dissected specimens that many of the birds were sterile."

The battle to save the heath hen may have been the most intense wildlife management effort of its time. An accounting of state expenditures seven years before the last male disappeared showed that Massachusetts had spent $56,912 on heath hen preservation – the equivalent of almost $850,000 today. In many ways, this program blazed the trail for the intensive endangered species recovery programs that followed. It demonstrated the threats posed by inbreeding, imbalanced sex ratios, disease, and unexpected events like fire. More than that, however, it demonstrated how expensive and ultimately ineffectual our best efforts can be when we recognize a problem too late. The best way to manage endangered species is to do something before they're endangered.

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