



BOOM TIME!

STORY AND PHOTOS BY LOWELL WASHBURN

KELLERTON
GRASSLAND'S
UNIQUE
GLIMPSE INTO
IOWA'S PAST



PRAIRIE SPOKESMAN—Male greater prairie chickens display on a booming ground at the Kellerton Bird Conservation Area in Ringgold county. When settlers first arrived, the prairie chicken was Iowa's most abundant gamebird. As the state's vast prairies were broken and developed, the species declined and vanished. In 1987, the DNR began releasing live-trapped wild prairie chickens from Kansas onto grasslands near Kellerton. Descendants of those birds survived to establish populations on both sides of the Iowa-Missouri border.



It's still pitch-black when the hilltop stirs to life. With nearly a full hour to go until sunrise one can hear, but not see, the first male greater prairie chickens sailing in from nearby roosting areas. The lack of visibility doesn't seem to matter. This is one outdoor performance that never waits for daylight. As soon as the first chickens touch the ground, Act One of "The Spring Ritual" begins.

Somewhere on the dark prairie, the morning's first male begins his dance. The bird bows and then, in a cadence too rapid to follow, begins to stomp both feet in blurring succession that quickens to an intense drum roll. The force causes the chicken to spin like a feathered wind-up toy.

But the best of the show is yet to come. With feet still pounding, the bird suddenly bows again and begins to pump air

into its leathery, orange neck sacs. Once the chicken's neck is fully inflated, the prairie song begins. It is a sound like no other.

Eerie, weird, mournful, haunting. Although these adjectives may attempt to describe the prairie chicken's courtship call, the words fail miserably. In reality, the hollow, resonate sound is completely indescribable. Once heard, this unique bird song will be burned deep into your memory to be replayed time and again.

The chicken's initial booming does not go unnoticed by other early arrivals. In a fit of intense jealous rage, a nearby cock suddenly rushes the dancer. Beak-to-beak, toe-to-toe, the birds quickly square off. With hackles raised, the challenge begins. But neither bird is willing to back down. Within seconds, the cackling confrontation

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Biologists Fight to Prevent a Lonely Population From Self-Destruction

BY LOWELL WASHBURN

It's late April and there is no question that spring has arrived at Ringgold County's Kellerton Grasslands Bird Conservation Area. From the crest of a nearby hilltop, a flock of greater prairie chickens call, fight and dance. The males assemble here each spring, hoping their courtship calls will attract interested hens. It's a ritual as old as the Iowa prairie itself. In fact, when European settlers first arrived in southern Iowa during the late 1830s, they reported an active booming ground, or lek, where mating rituals were held on this very hill.

Historically, prairie chickens shared this once-endless prairie vista with such large and magnificent creatures as elk, wolf and bison. These charismatic species, along with nearly all of the state's native prairies, have long since vanished. Today, only a few chickens remain. And although current populations are but a mere glimmer of the glory days, their booming calls preserve a vital link to Iowa's grassland heritage.

But on this spring morning the chickens are not alone. From the isolation of a wooden viewing platform, DNR Wildlife Biologist Chad Paup watches and waits. Scanning the flock through the powerful lens of a spotting scope, he's hoping to observe some of the birds as they enter the funnels of small, wire-cage traps scattered across the area. The chickens are live-trapped so scientists can obtain blood samples, weights and other scientific information. Once data is obtained, each bird is banded and released.

"There are currently around 30 prairie chickens on the Kellerton Area, which easily makes it Iowa's largest lek," says Paup. "Although this flock seems to be hanging on and holding its own, we are very concerned with the isolation of this species. Since there is no interaction with birds from other flocks, we're concerned that a genetic bottleneck may be occurring. At this point,

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OPPOSITE: In displays for dominance and the right to mate, males compete for the affections of hens at booming grounds or leks—communal areas where males make vocalizations with showy courtship rituals.

TOP: A victor removes a feather from a rival male. **RIGHT CENTER:** After failing to enter the funnels of a wire live trap—perhaps due to fog and frost—a hen uses the roof to survey its home base at the Kellerton Grasslands Bird Conservation Area. After days of trapping, DNR biologists successfully obtained blood samples and banded numerous birds from the lek—Iowa's largest and most active prairie chicken breeding ground. Collected genetic information will help better manage populations.

RIGHT: DNR Biologist Chad Paup checks a live trap. After following a wall of wire barriers to the trap, birds enter through one-way funnels.



VANISHING BREED— Once common across Iowa, the prairie chicken fell to the gun and plow as the rich prairies were turned to crop fields and tens of thousands were killed in the 1870s and 1880s, mostly due to market hunting. In the past, flocks of 300 or more chickens would gather in the winter stubble fields. One flock viewed in 1884 near Charles City "...in flight was half a mile long, fifty yards wide, and three to four birds deep. If each bird occupied an area of two by two yards and the birds were three deep, the flock contained 33,000 birds..." according to "A Country So Full of Game," by James J. Dinsmore.





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escalates to where each male is leaping straight into the air while assaulting its opponent with beak, wing and claw.

The battle continues. Finally, following several loud and violent clashes, the challenger concedes and retreats to the hilltop's perimeter. Reminded of his ranking, the exiled chicken soon resumes dancing—this time from a safe distance.

There's good reason for all this aggression. For the greater prairie chicken, spring booming grounds, more properly called leks, are the very essence of species survival. Although all adult males boom and dance, only the most dominate birds are allowed to occupy the lek's center stage where females will eventually come to be courted.

Although hard to determine their exact number, a steady trickle of males has been arriving on the booming ground for the past half hour. And as the eastern sky becomes tinged with the orange and reds of a new dawn, the boomers display with increasing vigor. Here, amidst the seeming chaos of booming, sparring and retreating,

the daily pecking order is re-established. It's an age-old scenario. Dominant males to the center; younger, inexperienced birds to the outside.

By now the lek is an amplified cauldron of sound as each bird does his best to out-compete rivals. On a crisp morning, the collective booming can be heard for a mile or more in all directions. One can only imagine the wall of sound that once greeted the spring sunrise as tens of thousands of greater prairie chickens boomed and danced across pre-settlement prairie landscapes.

Daylight is coming fast now, and one can begin to see the birds more clearly, 13 chickens in all.

Suddenly, without fanfare, a lone female mysteriously appears on the hilltop's horizon. Males acknowledge her presence and the booming escalates to near hysteria. The hen pauses to briefly survey her surroundings. Satisfied that she has become the absolute center of attention, the bird gracefully strides toward the center of the lek. 🐔

FIRE ON THE HILLS

Prescribed burning has become one of the DNR's most important tools in the continuing struggle to preserve beleaguered grasslands. Fire stimulates growth among native prairie plants and retards the invasion of shrubs and trees.

"Re-establishing prairie grasslands takes patience," says DNR Wildlife Technician Micah Lee as he conducted a controlled burn at the Kellerton Grasslands Area last April. "The section we're burning today was seeded to warm season, native prairie species three years ago. I can see that a lot of good stuff is starting to come up here. This year's burn will be a set back to undesirable, cool season grasses but will stimulate the growth of warm season natives. The end result will benefit nesting prairie chickens as well as other grassland bird species."



Biologists take blood samples for genetic study.

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there is no mixing of the gene pool."

Historically, prairie chickens drifted between leks—sometimes traveling as far as 15 to 30 miles to visit other birds. The result of those wanderings, says Paup, was a vibrant genetic diversity that kept populations healthy and robust. Without some measure of genetic variation, scientists fear the Kellerton birds could eventually disappear as a result of inbreeding.

DNR biologists are looking to refresh this gene pool. Perhaps the most feasible solution, says Paup, would be relocating wild trapped prairie chickens from thriving flocks in Nebraska to southern Iowa.

"But before we do anything, we need to obtain a genetic baseline from the birds already existing here," says Paup. Blood samples taken from southern Iowa birds will be analyzed at a Wisconsin laboratory that specializes in prairie chickens and other birds. The lab even has limited historic genetic information from Iowa prairie chickens collected about the same time pioneers arrived, he says.

"Right now, we know of six locations where at least a small number of males are actively booming," says Paup. "Although the numbers are extremely small, those birds really do give us hope that existing populations have the potential to expand."

For now, DNR wildlife personnel continue to manage the Kellerton grasslands in a way that provides maximum benefit to native prairie plant and wildlife communities. Prescribed burning has become a major tool in the endless war to halt encroaching trees while preserving the integrity of prairie plant communities. Biologists are also working with landowners to improve the quality of nearby private grasslands.

"If we're eventually able to trap and bring in wild birds from Nebraska, I'm hoping that it will be on a scale that will really make a difference," says Paup. "There are a couple of ways to tackle the project. One option is that we could attempt a one time, big release of at least 200 birds. I think an even better approach would be to stock 75 to 100 chickens every other year.

"Prairie chickens represent a unique connection to Iowa's prairie heritage. Managing the Kellerton grasslands for their continued benefit is a top priority." 🐔

ASSIGNMENT PRAIRIE CHICKEN: GETTING THE PHOTOS

Successfully photographing spring prairie chickens means getting out of bed early for staff photographer Lowell Washburn, shown above middle. Today, that meant being in the blind and set up before 4 a.m.

"The lack of sleep was easily worth it. The sky was cloudless, the light—when it finally came—was perfect. Best of all, the chickens were cooperative."

He arrived on site the afternoon before and located the areas of greatest courtship activity. Prairie chickens are creatures of habit, and chances of return visits were all but guaranteed.

To increase chances for success, "I brought an old taxidermy specimen—a study skin of an Iowa chicken collected around the turn of the last century. I hoped booming males would be duped by the fake and come closer to display. To protect the old study skin from possible aggression, I encircled her with wire cylinder." (Shown opposite top left.) The tactic worked. At one point, five males danced and fought before the century old decoy.

The high point of the day came when booming males leaped onto the roof of his lightweight portable hide. "Pressing against the blind's thin exterior, one chicken danced on my head. The sound of the booming bird was incredible, and the assignment remains one of my most thrilling photo shoots."