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A rare wild chicken could become Colorado's first "climate casualty" after rescue attempt falters

Bruce Finley

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Among America's iconic native birds, the lesser prairie chicken can be especially hard to spot — hiding behind shrubs, seldom popping out except before sunrise in spring for flamboyant mating dances.

But now it may become Colorado's first climate casualty.

A painstaking \$428,000 state effort to avert extinction by relocating 205 of these chickens from Kansas to Colorado's southeastern plains is failing, state records show. Colorado Parks and Wildlife biologists, and bird experts, blame hotter, drier conditions. Federal authorities have cited climate change as a factor in their decline. CPW data show the relocated chickens decreased from 139 in 2020 to fewer than 90.

Even now that the <u>U.S. Fish and Wildlife Service</u> has granted <u>Endangered Species Act</u> protection — the ecological equivalent of emergency-room life support — bird experts say the future of the lesser prairie chicken and its cousins — the <u>Greater sage grouse</u>, Gunnison sage grouse, and the greater prairie chicken — looks increasingly precarious.

"We're seeing the lesser prairie chicken as one of the first in the line of many climate casualties," said Jon Hayes, executive director of the Audubon Society for the southwestern United States.

Audubon Society scientists have estimated that, if <u>climate warming</u> continues unabated, more than 60% of bird species in North America will vanish by the end of the 21st Century.

The lesser prairie chicken and other grouse cousins in Colorado "are on the front lines of the battle," Hayes said, advocating large-scale land preservation that could help birds endure droughts as the last option for possibly reversing declines.

Human industrial activities long have <u>imperiled prairie birds</u>, including industrial agriculture after the Dust Bowl, oil and gas development, and renewable wind and solar energy installations.

"But, now, what we are seeing is absolutely the impact of the climate," Hayes said.

Rising temperatures have led to intensifying droughts with rainfall concentrated in fewer storms, often falling all at once. This pattern reduces rainwater infiltration into groundwater, often meaning less water available when plants most need water. Then, the reduced vegetation reduces insect populations — the food young birds need.

Federal wildlife officials on Nov. 17 designated the nation's surviving lesser prairie chickens officially "endangered" across Texas and New Mexico and "threatened" in Colorado, Oklahoma and Kansas – the five states where these chickens exist. For more than two decades, wildlife advocates have been warning of imminent extinction.

Lesser prairie chickens once numbered in the hundreds of thousands across Colorado and the other four states. Federal data

show an overall decline from 45,000 in 2014 to fewer than 27,000.

Federal authorities also have classified the <u>Gunnison sage grouse</u> in southwestern Colorado as threatened. And in 2010 federal biologists determined the Greater sage grouse, a species that numbered in the millions across 165 million acres in Colorado and ten other states needed protection, yet decided in 2015 to rely on <u>state-led voluntary efforts</u> to prevent extinction. The Greater prairie chicken, found in northeastern Colorado (Yuma, Washington and Phillips counties), also faces dry conditions but so far has survived.

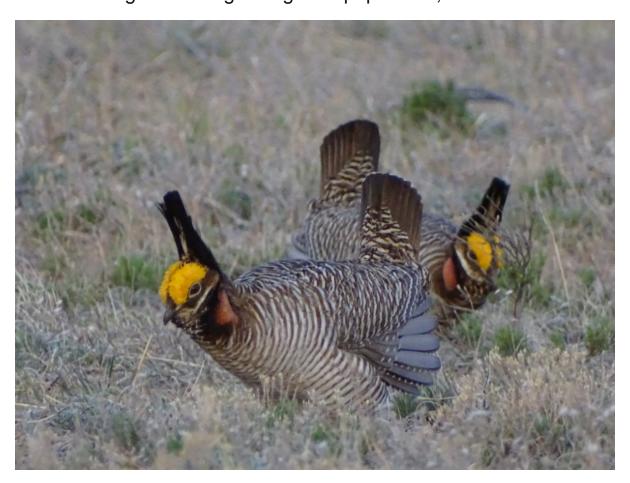
Colorado wildlife officials spent \$428,000 between 2017 and 2021 on an unprecedented rescue campaign to capture and move chickens from Kansas — an effort to head off federal intervention. Of those funds, \$300,000 came from a federal grant to the state, CPW records show. The \$428,000 figure doesn't include additional state funds used for paying employees, vehicle mileage, equipment, and aircraft tracking flights.

A federal endangered species listing requires tougher restrictions, potentially complicating energy pipelines, roads and other development that could hurt the chickens and the native prairie habitat needed to recover the species.

A CPW team working in icy pre-dawn light with counterparts in Kansas used remote-controlled nets to capture 205 lesser prairie chickens (103 males and 102 females). They hauled them to Colorado and released them, trying to re-establish a self-sustaining population on the federally-managed 443,784-acre Comanche National Grasslands near La Junta in southeastern Colorado.

Why those chickens aren't taking hold remains "a good question," said Nancy Brewer, a U.S. Department of Agriculture rangeland ecologist who helps manage the grasslands.

"We think we've created a good habitat for them that they like – sand sagebrush grasslands. That's the kind of forage they like where they lived. But, for some reason – who knows why? – they are not taking hold and growing their population," Brewer said.



Lesser Prairie Chickens are seen in this undated image. (Photo courtesy of Liza Rossi/Colorado Parks and Wildlife)

"Over the last couple of years, the drought has taken a toll on the kind of cover and forage that they need," she said. Predators include coyotes and skunks.

<u>CPW</u> officials declined to discuss their project and plans for the future. "CPW does not recognize any native Colorado species as a 'climate casualty,' " agency spokesman Travis Duncan said in an emailed response to Denver Post queries.

However, CPW bird conservation specialist Liza Rossi, in an emailed response to queries, said state biologists agreed with

federal land managers that the Comanche National Grasslands offers largely unbroken sand sagebrush habitat.

"We believed the habitat was capable of supporting the lesser prairie chicken, which is why we invested in the translocation effort and released the lesser prairie chickens on the national grasslands," Rossi wrote. "It is discouraging that numbers have declined after the translocation with the recent two years of drought. We remain hopeful that some of the leks (breeding areas) established during the translocation will persist into the future."

CPW officials anticipate that federal protection for the lesser prairie chicken, which starts in January, will improve conservation and "hopefully reduce future fragmentation of lesser prairie chicken habitats," she said.

"Beginning in the summer of 2020 and continuing through the spring 2022 counts, southeast Colorado has been in a fairly severe drought. Lesser prairie chicken numbers are known to fluctuate with precipitation, in large part because the birds nest on the ground and rely on adequate vegetation cover to conceal nests and successfully hatch chicks," Rossi wrote.

"Precipitation is also important to provide for insects and brood habitat as well. We think the recent decline is largely related to the drought and a reduction in vegetative cover. Research from the translocation effort has indicated that vegetation cover on many of the rangelands on the Comanche National Grasslands may not provide sufficient cover for nesting, particularly during periods of drought."

Killing a lesser prairie chicken would mean a federal fine and accidental "take" will require "mitigation" to help the species through approved actions to restore bird habitat.

The <u>Audubon Society scientists</u> found that climate warming impacts including reduced vegetation across North America would mean 389 out of 604 species they studied, drawing on tens of millions of bird records, lack suitable habitat. The scientists concluded those species likely would vanish before the end of the century if the earth's average temperature stays on track to warm by 3 degrees Celsius (5.4 degrees Fahrenheit).

"It is bleak. I'm not sure I'm ready to throw in the towel," Hayes said.

Saving grouse species "would take a massive investment and a lot of work. And, unfortunately, we're likely to see extirpations – local extinctions," he said. "The efforts to re-stock these birds are really challenging. The only solution is going to lie in an expansion of existing habitat so that they could naturally re-fill places where they used to live."