
Combination of CRP and rangeland may be best for lesser prairie-chickens

Since the late 1800s, the lesser prairie-chicken has seen a reduction in its range of about 92 percent and a resulting population decline of about 97 percent.

That reduction is continuing throughout most of its range—but not in western Kansas, where the lesser prairie-chicken is actually expanding its range.

The expansion coincided with the maturation of U.S. Department of Agriculture (USDA) Conservation Reserve Program (CRP) grasslands. There are only small remnants of sand sagebrush in west central Kansas, and wildlife biologists think CRP may be providing critical habitat for prairie-chickens in this area because it appears to offer greater cover height and structural diversity than most of the remaining native rangelands in this area.

A recent study by Colorado State University found that lesser prairie-chickens prefer the taller, denser vegetation of CRP grasslands to rangelands as nesting cover, especially if the grasses are near patches interseeded with forbs.

Researchers captured 71 female prairie-chickens on all known leks in a 135,850-acre area in southwestern Gove County, Kansas, in March and April of 2002 and 2003. They fitted each female with a battery-powered radio transmitter necklace, and then released it.

Then they located the radio-collared females by homing daily, up until July 31, to determine habitat use. They found and monitored 59 nests, as well as 27 broods of successfully hatched chicks.

“Out of 60 nests we found and monitored in Gove County, 42 (70%) were located in CRP,” says researcher Tammy Fields. “We located 22 in grass-dominated CRP, 19 in existing

CRP interseeded with forbs, 16 in rangeland, and 2 in cropland.”

In contrast, broods were found more frequently in rangelands. Broods tended to select heterogeneous areas that were characterized by grassy cover interspersed with patches of forbs. Forbs provide an invertebrate food base for the chicks and grass may provide escape cover.

Additionally, hens with broods were frequently located in swales, low lying moist areas, and areas with moderate amounts of bare ground. Low lying areas may have protected broods from drought, and moderate amounts of bare ground may have helped broods move to avoid predators.

These findings suggest that a mosaic of habitat types may be the most beneficial to prairie chickens. CRP fields may be providing nesting and escape cover, while rangelands may be providing grassy cover interspersed with patches of forbs desired by broods.

A variety of methods can be implemented to increase forbs on portions of CRP fields and rangelands, according to Wendell Gilgert, a wildlife biologist with the USDA Natural Resources Conservation Service (NRCS) in Portland, Oregon, who facilitated the study for the NRCS. They include interseeding, prescription grazing, mowing, strip disking, and burning.

Project funding was provided by Kansas Wildlife and Parks and the NRCS Agricultural Wildlife Conservation Center (AWCC).

The AWCC, located in Madison, Mississippi, is a fish and wildlife technology development center.



Photo by Gary Kramer

Lesser prairie-chicken

Summary of:

Agricultural Wildlife Conservation Center
Project #s 68-7482-3-116/68-7482-2-31

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