



Research Update

U.S. FISH AND WILDLIFE SERVICE

Mountain-Prairie Region

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Study Shows Taller Grass Benefits Nesting Sage-Grouse

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LAKWOOD, Colo. – Greater sage-grouse hens that nest in taller grass have better odds of success, at least in northeast Wyoming and neighboring Montana, according to a new study recently published in the journal *Wildlife Biology*.

The new paper, "*Linking conservation actions to demography: grass height explains variation in greater sage-grouse nesting survival*," found that the strong relationship between grass height and nest success illustrates the value of managing grass height as a conservation tool, and suggests that managing priority landscapes to maintain grass height can benefit sage-grouse populations.

Lead author Kevin Doherty, a researcher with the U.S. Fish and Wildlife Service, said the study did not look at the influence of grazing on nesting success, but provides a foundation for other research that will.

"Our work has spurred new projects that are experimentally designed to evaluate if grazing systems can be used as a tool to increase sage-grouse populations," Doherty said.

Researchers have long recognized that sage-grouse utilize residual grass cover and new growth in very early spring for nesting, and the study's findings track with earlier studies. Results of the study, based on data was collected in from 2003-2007, are applicable to sagebrush grasslands of northeast Wyoming and eastern Montana, but not to other regions, the scientists said.

Key findings:

- The results of this study reinforce previous findings about the importance of considering grass height when managing sage-grouse nesting habitat in yet another part of the species' range.
- The specific results of this study (e.g., specific grass heights) apply to sagebrush grasslands of northeastern Wyoming and eastern Montana, but not elsewhere.

- Grass height is controlled by many factors, including the timing and amount of precipitation, soil characteristics, and utilization by livestock, wildlife and insects.
- The study was not designed to evaluate whether livestock grazing is contributing to declines in sage-grouse populations.
- The study did not test different grazing strategies, different levels of livestock grazing intensity, or the effects of overgrazing on sage-grouse, or even whether overgrazing occurred. Three other studies are currently examining these questions.
- Sage-grouse require healthy sagebrush. Grass height won't matter if sagebrush is replaced by energy development, cropland or subdivisions. Encouraging ranching operations that support habitat conditions sage-grouse need is important for sage-grouse conservation.

[Linking conservation actions to demography: grass height explains variation in greater sage-grouse nest survival.](#)

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