How does perennial grassland cover affect duck nest survival?

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Efforts related to the management of breeding ducks in North America have often focused on developing and implementing practices that promote the survival of nests. Although it's thought that increasing perennial grassland cover will benefit nest survival and the recruitment of ducks and similar species, a new study published in *The Journal of Wildlife Management* indicates this may not always be the case.

In the study, which examined nearly two decades of nesting data from regions in Montana, North Dakota, and South Dakota, the magnitude and direction of how perennial grassland cover correlated with nest survival depended on its dominance as a landcover type. A positive relationship tended to exist when perennial cover was either a minor or major component of landcover, and no additional benefit was predicted at locations with intermediate (30–60%) perennial grassland cover. Environmental conditions also moderated or enhanced the effect of perennial grassland cover on nest survival.

"Although there is little doubt that waterfowl and other species have benefitted from the protection and restoration of grasslands, we found that benefits to nesting ducks varied across the U.S. Prairie Pothole Region," said lead author Aaron T. Pearse, Ph.D., of the USGS Northern Prairie Wildlife Research Center. "Results of this study, when coupled with contemporary land-use trends, can help managers identify which landscapes and under which environmental conditions that grassland conservation could maintain or improve hatching rates."


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