
**04-06 The Impacts of Rotational Grazing on the
Small Mammal and Bird Communities in
Southwestern Wisconsin**

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Rotational grazing has been proposed as a Best Management Practice for riparian zones on farmlands in Wisconsin, but the effects of such recommendations on small mammals and birds breeding in grazed areas have not been studied. Riparian management in the Midwest, while important for water quality, may not have the same implications for avifauna that studies in western riparian areas have documented, where unique communities are associated with streams. A study was conducted in 1996 and 1997 on 12 sites to assess the impacts of different riparian management options on small mammals and grassland birds in southwestern Wisconsin farmlands, as part of a larger interdisciplinary program addressing management strategies for improving and protecting water quality of streams. Species richness and abundance of grassland birds and vegetation structure were compared between 20 m-wide riparian zones and adjacent uplands in rotationally grazed pastures, continuously grazed pastures, and vegetative filter strips. For all three management regimes, in 1996 bird species richness and total abundance was higher within 10 m of the stream than greater than 10 m from the stream; however, this pattern may not have been repeated in 1997. Overall, there was no significant difference in species richness and abundance between management regimes in the two years. In contrast, small mammal species richness was highest in the vegetative buffer strips with few animals caught on the rotationally-grazed and continuously-grazed sites. The impacts of the grazing systems on these two groups were different. Birds may be responding to other factors such as pasture size and shape and adjacent land use while small mammals, not as mobile as birds, may be responding to the loss of habitat (e.g., a decreased litter layer on the grazed areas).



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