Assessing Grazing as a Conservation Tool in Sagebrush and Grassland Ecosystems

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Grazing is a powerful tool to address wildlife declines associated with land use conversion in the western United States. Grazing systems can be manipulated to achieve desired vegetation outcomes, preserve native habitat and economically benefit multiple stakeholders. As a result, systems designed to benefit native ecosystems are being widely implemented. However, the benefits of these grazing systems on many wildlife communities remain relatively unexplored. Songbirds provide an ideal study system to test these benefits because they continue to use landscapes that are currently grazed. We compared songbird communities between two grazing systems in eastern Montana: rest-rotation systems and season-long systems. Our results suggest grassland and sagebrush (Artemsia spp.) associated species, many of which are of conservation concern, exhibit a mixed response to these two grazing types. Grassland associated species are more abundant in season-long grazing systems than rest-rotation grazing systems. In contrast, sagebrush associated species show no difference in abundance between the two grazing systems. These results suggest that grazing management may have the largest impact on grassland associated species. In contrast to the idea that different grazing management can have effects on a wide variety species with similar life history traits, such as birds, we found that differences in grazing management only affected a small subset of species. Our findings provide essential information for assessing the suitability of grazing as a conservation tool.