

## AVIAN POINT-COUNTS OF HAYFIELDS AT GRANT-KOHR'S RANCH NATIONAL HISTORIC SITE

MATTHEW LARSON, DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF MONTANA



*Taylor Field at Grant-Kohrs Ranch*

Grant-Kohrs Ranch National Historic Site (GRKO) is a working cattle ranch dedicated to historic preservation of the frontier cattle era. As part of the National Park Service, however, it is directed to conserve both its historic and natural resources. The result is a working landscape that supports many native species of flora and fauna.

This project reflects GRKO's mission: It informs best management practices of annual hay harvest with respect to grassland nesting bird species.

The decline of many grassland birds is often attributed to habitat loss and fragmentation, conversion to agriculture and development, and untimely and detrimental management practices. Mowing of hayfields during the breeding season could have a negative effect on the birds that nest in these agricultural landscapes. To assess this potential impact at GRKO, I conducted bird surveys using a standardized point-count technique, before haying. Results are summarized in this report, to assist with the development of best management practices for hayfields on the ranch.

2010 surveys occurred 18 May-09 July, before annual hay harvest on 15 July. I conducted three separate surveys of three different hayfields. A total of 496 birds were detected, representing 47 different species. Most common, entailing 51% of all species detected, were Savannah Sparrows (*Passerculus sandwichensis*)(31%), Bobolinks (*Dolichonyx oryzivorus*)(11%), and Western Meadowlarks (*Sturnella neglecta*)(9%). The Bobolink is listed as a "Species of Conservation Concern" (Montana Fish, Wildlife and Parks), and as "Sensitive"(Bureau of Land Management), due to its decline in North America.



*Bobolink (GRKO archives)*

No nests were found during point-counts or casual observations. However, it is likely that both Savannah sparrows and Bobolinks bred during the survey period, as juvenile birds of both species were detected during the last survey on 09 July 2010. Given the Bobolink's status, it may be appropriate to delay hay

harvest until the end of the breeding season. Some studies suggest cutting after the 15<sup>th</sup> of July. Hayfields at GRKO are generally cut after this date.



*A field day with YCC*

In addition to survey work, I brought several high school students from the Youth Conservation Corps (YCC) into the field to learn about the bird habitat, monitoring, and management components of this project.