



Grasshopper Sparrow

PROGRAM OVERVIEW

Grassland bird conservation in the southern Great Plains depends on strong partnerships among private landowners and resource professionals. The **Conservation Reserve Program (CRP)** is a voluntary program for agricultural producers administered by Farm Service Agency (FSA), and it provides incentives to landowners to take cropland out of production and plant it back into grassland. Although not originally intended to recover wildlife populations on agricultural land, the CRP has become an important tool for managing grassland birds, including the lesser prairie-chicken (LEPC). In 2016 and 2017, Bird Conservancy of the Rockies partnered with the FSA, private landowners and other organizations to examine the effectiveness of the CRP in promoting biodiversity and populations of grassland birds. **Objectives** included:

1. Determine biodiversity of grassland birds on native and introduced CRP plantings in the LEPC range relative to agricultural lands; and
2. Estimate the contribution of CRP land to declining grassland birds in the Playa Lakes Joint Venture (PLJV) region.

METHODS



The studies took place on CRP lands within the PLJV region and occupied range of the LEPC (Fig. 1).

We used the **Integrated Monitoring in Bird Conservation Regions for PLJV** program to select survey locations. Sampling occurred across 28 CRP locations in the PLJV region during 2016 and 2017, and 33 locations on native and introduced plantings in the LEPC range during 2016. Monitoring also occurred at 300 locations on surrounding grasslands and agricultural fields (not shown).

At each location, a team of field biologists surveyed songbirds on 247 acre plots, each containing 16 evenly spaced 12 acre point count plots.

The field work in the southern Great Plains involved contacting over 2,000 landowners to obtain permission for surveys on private lands.

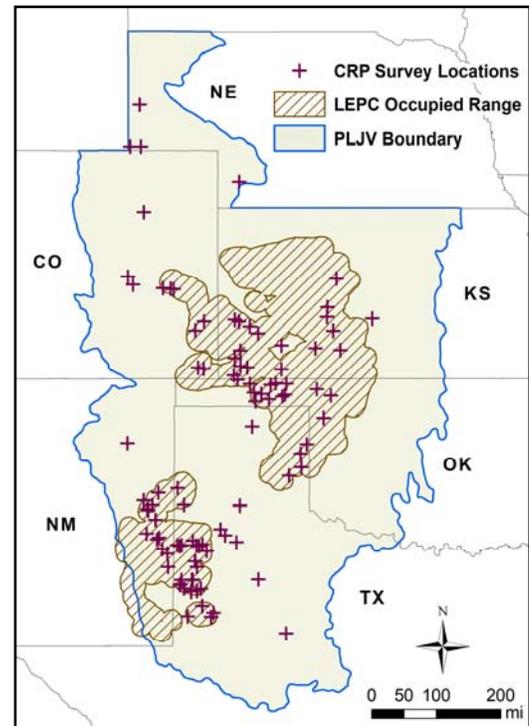


Figure 1. Survey locations for the Conservation Reserve Program (CRP) in the Playa Lakes Joint Venture (PLJV) region and the Lesser Prairie-Chicken (LEPC) range.

RESULTS



Biodiversity responses to CRP on private land

- Native and introduced CRP plantings had higher numbers of grassland-specific bird species at point count plots compared to agricultural land (Fig. 2).
- There were also differences in species composition between native and introduced CRP plantings. Grassland-specific birds, such as Grasshopper Sparrows, favored native CRP, and grassland-generalist birds, such as Mourning Doves, favored introduced CRP.

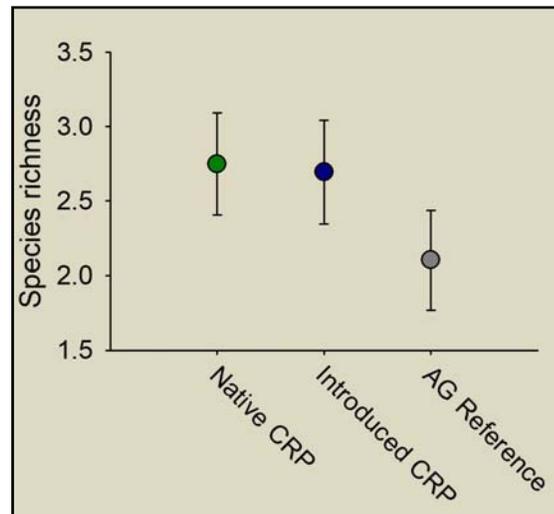


Figure 2. Species richness on native and introduced CRP and agricultural lands in the Lesser Prairie-Chicken (LEPC) range.

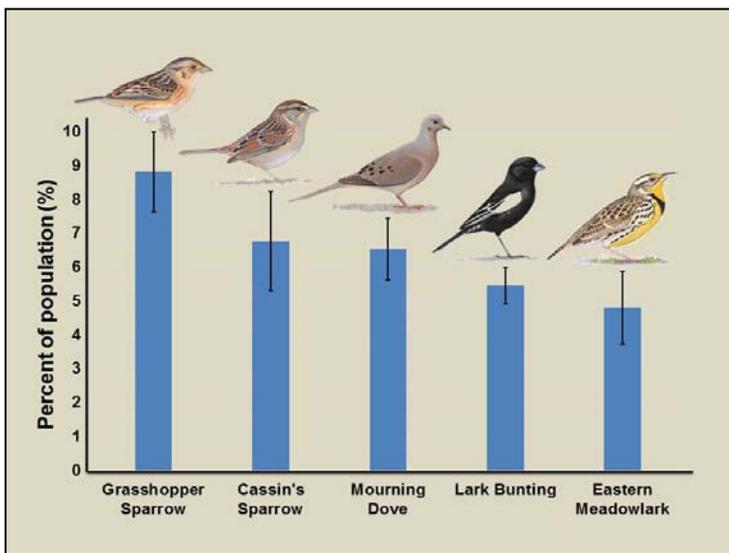


Figure 3. Percentage contribution of the Conservation Reserve Program to declining grassland bird populations in the Playa Lakes Joint Venture region.

Contributions of CRP to PLJV bird populations

- CRP land conserved large percentages of declining grassland bird populations in the PLJV region, including Grasshopper Sparrows and Eastern Meadowlarks (Fig. 3).
- On average, each year, CRP contributes:
 - 2,600,000 Grasshopper Sparrows
 - 600,000 Cassin's Sparrows
 - 400,000 Mourning Doves
 - 600,000 Lark Buntings
 - 200,000 Eastern Meadowlarks

Conservation benefits of CRP for grassland birds

Our results indicate CRP is an important practice for conserving grassland birds in the southern Great Plains. CRP lands promote greater biodiversity for grassland birds and higher population densities for several species of grassland birds compared to agricultural lands. Long term monitoring is useful for evaluating the effectiveness of CRP for meeting wildlife objectives, and the extent that enrollment and expiration of CRP lands influences bird populations over time. CRP lands make meaningful contributions to declining grassland bird populations in the PLJV region, including 2.6 million Grasshopper Sparrows, 400,000 Mourning Doves and 200,000 Eastern Meadowlarks per year.

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PROGRAM PARTNERS

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