



Grasshopper Sparrow

## PROGRAM OVERVIEW

Grassland bird conservation in the southern Great Plains depends on strong partnerships among private landowners and resource professionals. The **Lesser Prairie-Chicken Initiative (LPCI)** was initiated in 2010 by the USDA Natural Resources Conservation Service to help ranchers and farmers voluntarily engage in enhancing Lesser Prairie-Chicken (LEPC) habitat while maintaining or improving the long-term productivity of their agricultural operations. Efforts to improve habitat for LEPC will likely provide an umbrella for conserving other wildlife species. In 2015, Bird Conservancy of the Rockies partnered with multiple organizations and private landowners to examine the responses of songbirds to conservation practices for the LEPC.

*This collaborative study involving private landowners and diverse resource professionals focused on:*

1. Songbird responses to LEPC conservation investments on private land
2. Extent that LEPC can serve as an umbrella species for the grassland bird community

## METHODS

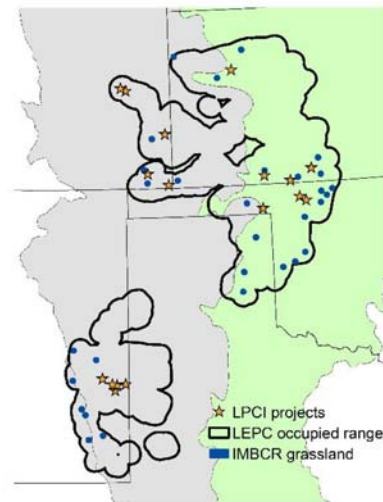


The study took place on 17 ranches enrolled in LPCI prescribed grazing within the occupied range of the LEPC in Colorado, Kansas, Oklahoma and New Mexico (Fig. 1).

We used the **Integrated Monitoring in Bird Conservation Regions** sampling design to select the survey locations.

A team of field biologists surveyed songbirds on 247 acre plots, each containing 16 evenly-spaced sample points, 251 yards apart.

We compared bird populations on LPCI ranches to those on randomly located reference grasslands in the occupied range of the LEPC.



*Figure 1. The general location of Lesser Prairie-Chicken Initiative (LPCI) ranches and reference grasslands surveyed in 2015. Stars denote LPCI ranches, round symbols are reference grasslands, gray region is the Shortgrass Prairie Bird Conservation Regions (BCR), green region is the Central Mixed-grass Prairie BCR, and bold lines are occupied range of the lesser prairie-chicken (LEPC) with a 10 mi buffer.*



Lark Bunting  
Photo by Erin Strasser



Grasshopper Sparrow  
Photo by Jose Hugo Martinez Guerrero



Western Meadowlark  
Photo by John Carr

## METHODS



### Songbird responses to LEPC conservation investments on private land:

- Cassin's Sparrow abundance was three times greater on sites managed for LEPC (vs. control sites), resulting in a population increase of 89,000 birds across all LPCI ranches in the occupied range of the LEPC
- Lark Bunting abundance was four times greater on sites managed for LEPC (vs. control sites), resulting in a population increase of 50,000 birds.
- More grassland obligate species occurred on managed for LEPC (vs. control sites) (Figure 2).

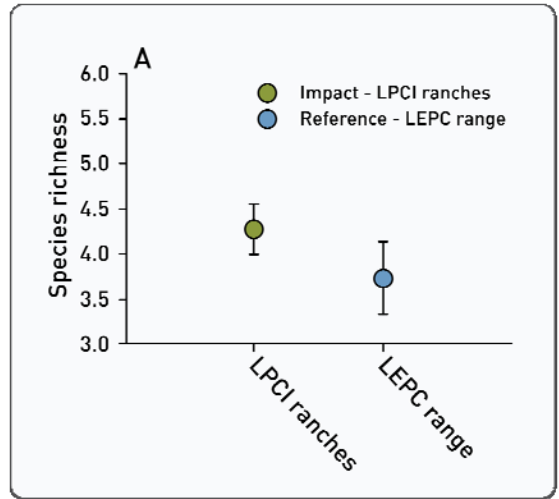


Figure 2. Number of grassland obligate bird species on Lesser Prairie-Chicken Initiative rangeslands (LPCI ranches) compared to average grassland conditions in the LEPC range

### Extent that LEPC can serve as an umbrella species for the grassland bird community

The LEPC responded positively to conservation practices on private lands, and the increase LEPC distribution was correlated with a greater number of songbird species. LEPC occurrence was positively correlated with the (distribution or presence) of the Lark, Grasshopper and Cassin's Sparrow, Horned Lark and Lark Bunting.

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## PROGRAM PARTNERS

This project was made possible with the support and collaboration of state wildlife agencies, private landowners and key partners including:



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