PLAYA LAKES JOINT VENTURE

Bird Conservancy of the Rockies

IMBCR

How It Works

- PLJV acts as a broker—managing the partner funding and contracts.
- Bird Conservancy of the Rockies executes most aspects of the IMBCR program—from hiring and training high-quality field workers to posting summary results.
- IMBCR for PLJV is part of the larger program which provides estimates of regional bird distribution and abundance across 12 western states.
- Program cost for the PLJV region is spread among many partners.
- Sample over 300 stratified-random grids each year.
- Detected 282 species, 269 of greatest conservation need, to date.
- Density and occupancy estimates help partners target and evaluate. conservation.
- Advisory committee representing partnership guides data modeling and management questions.

IMBCR for PLJV

providing region-wide bird data

Why Count Birds?

Many species of grassland birds unique to the western Great Plains are in steep decline. To better understand the causes of these declines, we need information about the distribution, abundance, and habitat that the species use across their range. This information helps conservation partners understand how to best manage wildlife populations and where to target conservation actions to reverse species declines. For example, we can demonstrate how ranchers can maintain habitat to support birds and work with them to improve habitat. Unfortunately, large-scale, long-term surveys of landbirds, that are needed to address landscape-level conservation are difficult to implement. They require deploying large, highly-trained field crews to survey locations across a wide landscape during a short window in early spring.

A Collaborative Solution

To address these challenges, Playa Lakes Joint Venture (PLJV) is working with many partners, including our management board, to fund the Integrated Monitoring in Bird Conservation Regions (IMBCR) program across our six states. The important work of implementation is executed by Bird Conservancy of the Rockies, also a board member. This program, IMBCR for PLJV, provides much-needed, scientifically defensible estimates of bird distribution and abundance across large regions that can be used by conservation organizations, state and federal agencies, and energy companies to target and evaluate habitat projects throughout the region.

In 2015, to disperse costs and secure the stability of the program, we began developing a large partnership of entities that can use high-quality bird data. In this way, no one entity bears a high burden of the financial cost, and if one entity has budget problems, the entire program will not collapse for lack of funding. We envision all partners contributing a portion of the necessary funding and committing to agreements for three to ten years. Our goal is to have so many partners that financial commitments by individual partners are significantly below expected proportional costs.

bird data collection

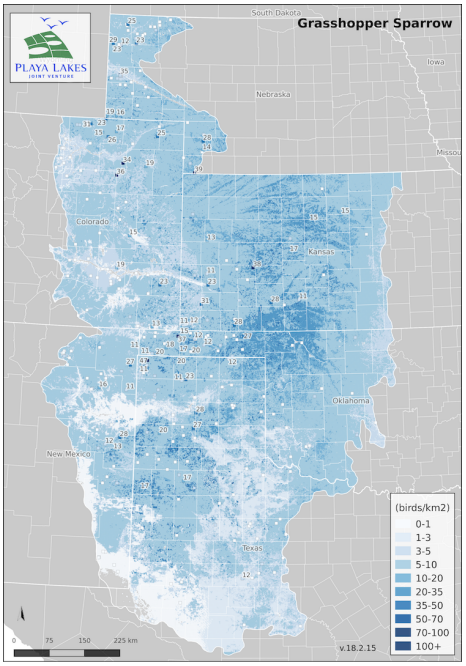
informing bird and habitat conservation

Program Funding

Coordinated data collection throughout the six PLJV states began in 2016. The total annual cost of the program is about $350,000, which includes staffing to analyze data to inform habitat conservation. The program is funded by regional and national partners, including Colorado Parks & Wildlife, Kansas Department of Wildlife, Parks & Tourism, Nebraska Game & Parks Commission, Oklahoma Department of Wildlife Conservation, Texas Parks & Wildlife Department, USDA Farm Service Agency, and USDA Forest Service. The Migratory Bird Program (Southwest Region, US Fish & Wildlife Service) also provides funding to support PLJV's work on this program.

Photo Credits

Front (top left to bottom right): Wind Energy by PLJV. Lark Bunting by Tom Benson. Swainson's Hawk by Tom Grey. Data Collection by PLJV. Shortgrass Prairie by PLJV. Back (left to right): Grasshopper Sparrow by Steve Byland. Grasshopper Sparrow Density Map. Scissor-tailed Flycatcher by Tom Grey.



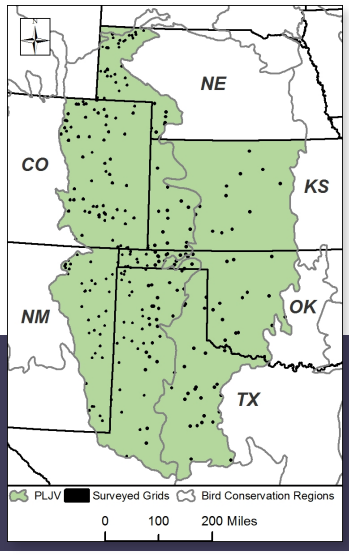
Data Applications

The structure of the IMBCR sampling protocol allows for studies that help answer specific questions as well as the collection of baseline data to create:

- Distribution maps and population estimates that are useful in all aspects of bird conservation;
- Habitat modeling that provides land managers information needed to guide conservation efforts, such as preferred local habitat conditions;
- GIS data that can be paired with bird data to guide landscape-level planning; and
- Habitat models that can be used to create predictive distribution maps to inform long-term conservation planning and habitat projects.

Evaluation Studies

In 2019, the partnership launched its first evaluation study, in which some baseline grids were turned off and temporarily reallocated to evaluate a condition on the landscape. The first evaluation study investigated the change in bird communities across a gradient of honey mesquite to determine thresholds for when our most sensitive grassland birds stop using an area due to shrub encroachment and birds preferring shrubbier habitats begin to dominate the community. In 2020 we repeated the study, focusing on eastern redcedar. Other potential future studies include changes in the bird community in response to energy development, effects of prescribed fire and wildfire on bird communities, and focused sampling for under-represented birds.



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