



ASSESSING GRASSLAND BIRD CONSERVATION THROUGH AUDUBON CONSERVATION RANCHING

ASHLY STEINKE

Our Purpose:

The purpose of Audubon Conservation Ranching is to stabilize declining grassland bird populations in partnership with land stewards.





HABITAT MANAGEMENT

Ranchers adopt a Habitat Management Plan (HMP) that addresses site-specific habitat goals and management actions to benefit target grassland bird species.



ANIMAL HEALTH & WELFARE

Certified ranches demonstrate a commitment to properly caring for livestock by adhering to livestock production methods that reflect best practices for animal health and welfare. Growth hormones are prohibited.



ENVIRONMENTAL SUSTAINABILITY

By restricting pesticides, minimizing fertilizers, and protecting streambanks, ranching practices result in cleaner streams, healthier soils, increased plant diversity, and more pollinators.

Program Protocols

The Three Pillars





Habitat Management Plans

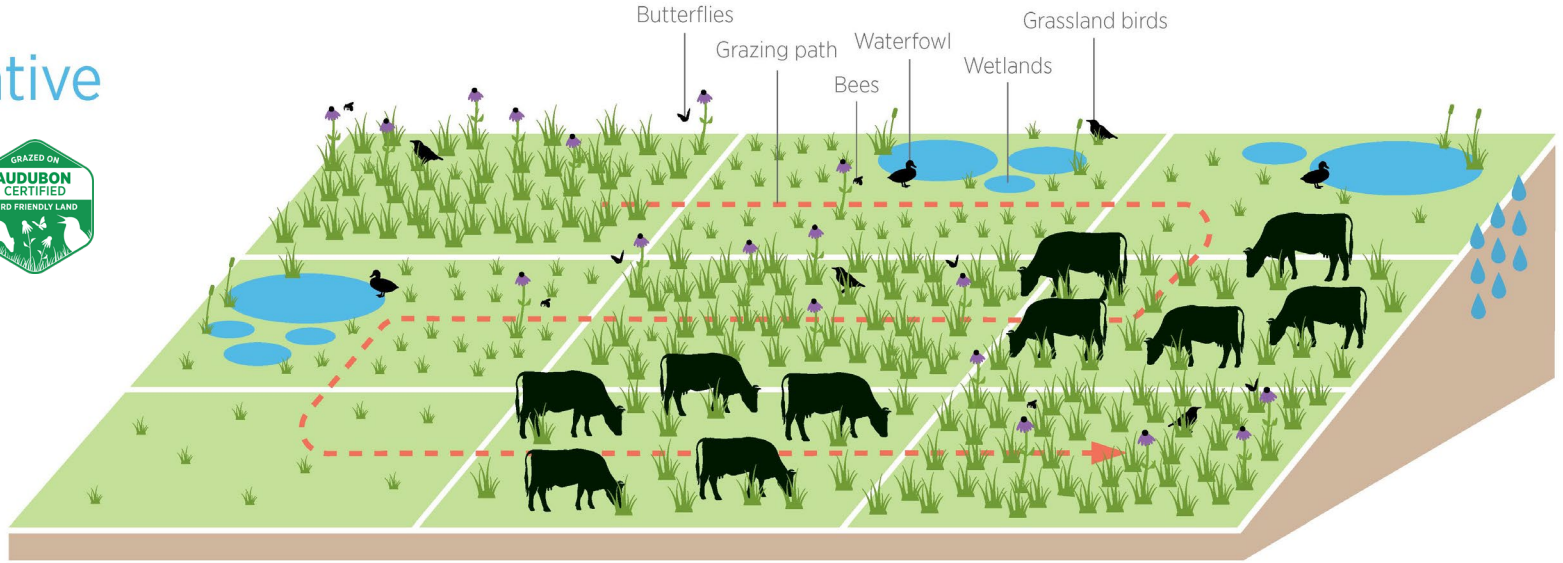
- Developed for each ranch
- Provide habitat for target grassland birds
- Restoration, diversification, invasive species/brush control
- Regenerative grazing, Managed Grazing as appropriate
- Create patchiness within and among the landscape



Regenerative Grazing



Cattle graze in one area and move on to the next, allowing the full regrowth cycle essential for grassland ecosystems.



DIVERSE HABITAT

Regenerative grazing enhances habitat diversity, which benefits birds, pollinators, and other wildlife.



CARBON SEQUESTRATION

Plants capture atmospheric carbon most efficiently during the regrowth process.



CLIMATE RESILIENCE

Healthy soils with deep roots hold more water and can withstand droughts.

Animal Health and Welfare

- No feedlots, unconfined
- Good health status (BCS 4-7)
- No antibiotics or hormones
- USDA or State-inspected processing plant





Environmental Sustainability

- Riparian protection
- Nutrient management
- No broadcast spraying, unless approved in HMP
- Support insect diversity (no use of neonicotinoids, no Ivermectin)



Monitoring: Birds, Vegetation, Soil

As part of our adaptive management approach to measure ranch-level changes with management practices, we conduct monitoring in:

birds, vegetation, and soil health



Bird Monitoring

- Conducted every year during June
- Data are used with land cover data and other variables to develop the Bird Friendliness Index (BFI) for each ranch.
- BFI incorporates species abundance, conservation status, and diversity of the entire community of grassland birds at a site.
- BFI changes are tracked over time at each ranch.



WHAT IS THE BIRD-FRIENDLINESS INDEX?

A metric that measures the abundance, diversity, and resilience of a bird community.

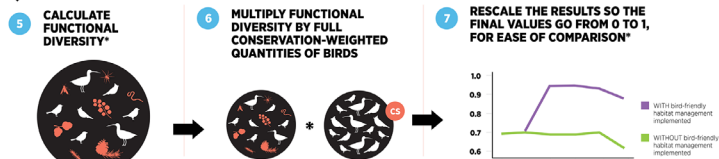
BFI = ABUNDANCE  **+** **DIVERSITY**  **+** **RESILIENCE** 

HOW DO WE MEASURE IT?

The BFI is the sum product of bird abundance, weighted by conservation status, and multiplied by functional diversity



**Partners in Flight, 2020. Avian Conservation Assessment Database, Partners in Flight and Bird Conservancy of the Rockies. Available from: pi.f.birdconservancy.org.*



**A measure of the balance of species that eat different foods and forage in different ways.*

**The value between 0 and 1.0 will measure the BFI. The figure above shows two representative BFI's for comparison—the higher number represents the BFI score after bird-friendly habitat management was implemented.*

WHAT DOES THE BFI TELL US?

Areas with higher abundance and more vulnerable birds support healthy communities. High functional diversity means communities are more stable and resilient.





Vegetation Monitoring

- Conducted concurrently with bird monitoring.
- Used to measure progress in goals defined in Habitat Management Plans.

Soil Monitoring

- Measuring existing soil carbon, bulk density, and total nitrogen.
- Water infiltration sampling provides measurements of the improvements in soil-water relationships.
- The Haney Soil Health test integrates chemical and biological measurements to assess the soil nutrient status, microbial biomass and aspects of the microbial habitat to determine overall soil health.



Biodiverse Benefits



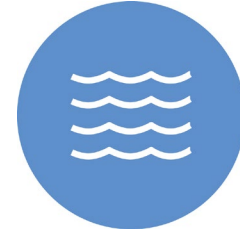
Birds + Biodiversity

Regenerative grazing enhances plant diversity and productivity, which benefits birds, pollinators, and other wildlife.



Carbon Sequestration

Plants capture atmospheric carbon, most effectively during the regrowth process, which is maximized by periodic short-duration grazing and long periods of rest.



Climate Resilience

Fertile soils with deep roots hold more water and can withstand drought.



Rancher Onboarding Process

6 months minimum

- Rancher/producer shows interest in the program.
- An assessment is completed to determine eligibility and suitability for program participation.
- A Habitat Management Plan (HMP) is developed for the ranch.
- The HMP is finalized and signed by the rancher. Management actions are initiated to meet HMP goals and program standards.
- A certification audit is scheduled and conducted on the ranch prior to livestock being sold.
- Ranch product is approved for the Audubon “seal” if the audit results are acceptable.





Audubon Certified Bird Friendly Seal

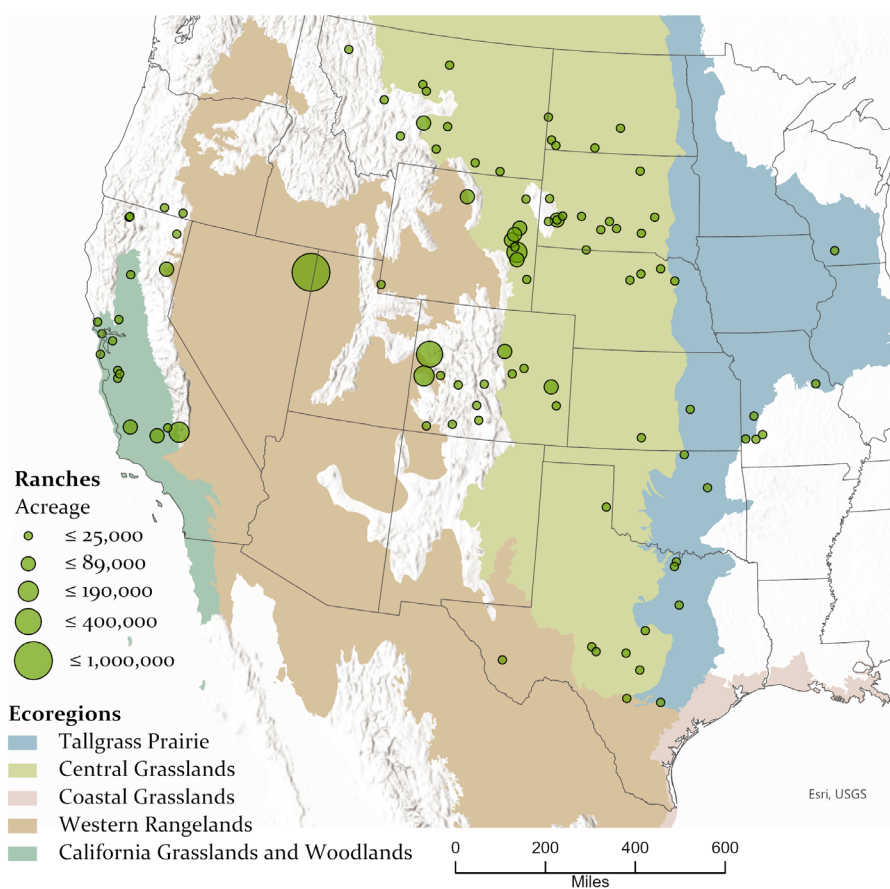
The Audubon Certified bird friendly seal recognizes lands managed to promote birds and biodiversity.

Turning consumers into conservationists through the power of their purchase.



AUDUBON CONSERVATION RANCHING





- 101 Audubon Certified Ranches totaling
2,736,239 acres

- Ranches in 14 states (CA, CO, KS, MO,
MT, ND, NE, NV, OK, OR, SD, TX, WI, WY)

The Numbers

- 14 states
- 101 ranches certified
- 2.7+ million acres certified



The Data

Birds

Grassland bird abundance increased by **36%** at the first **35** ACR Certified ranches monitored (2016-2019).

At the Fiddleback Ranch in Wyoming, grassland birds have increased in abundance by nearly **180%** on average.

At Round Rock Ranch in Missouri, patch–burn grazing and conversion of fescue to native plants has led to

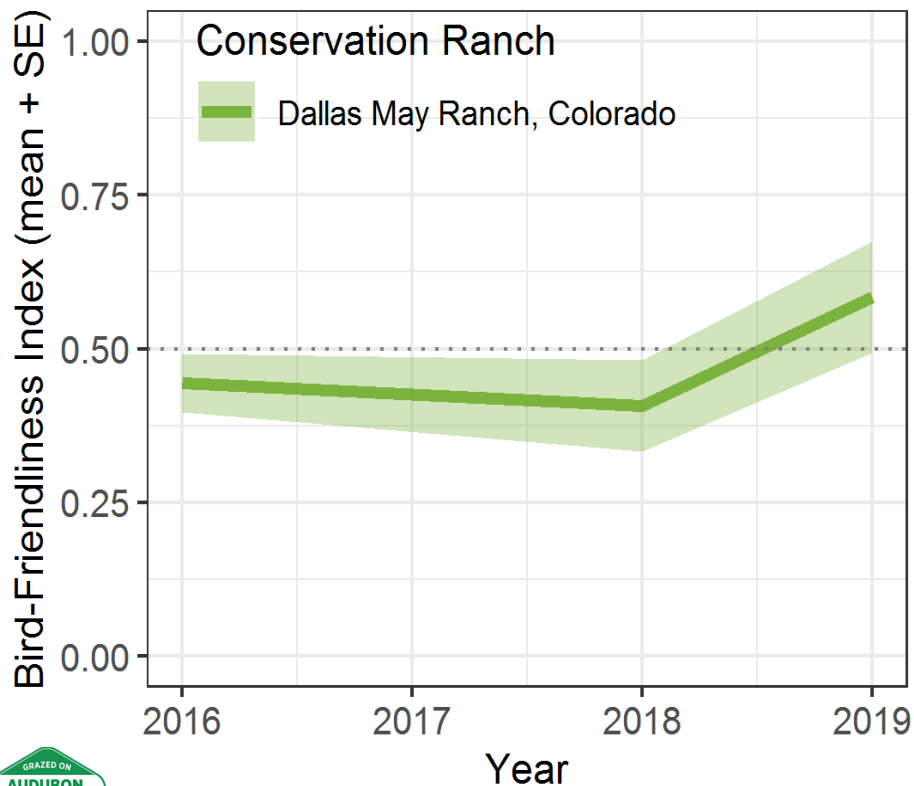
- **5X** increase in Bobwhite Quail
- **6X** increase in Eastern Meadowlark

Biodiversity

Our data show functional diversity, a measure of bird community representation, increased by **19%**.

This means that more diverse and resilient bird communities are supported on Audubon Certified Bird Friendly ranches.





Bird Friendliness Index

A Case Study: May Ranch, Colorado

- May Ranch is part of ACR to better conditions for birds on working lands.
- The Bird-Friendliness Index increased by 32% to 0.58 from 2016-2019





Expansion in the Upper Midwest

- Expanding into Wisconsin & Minnesota
 - Ashly Steinke – WI Grassland Ecologist
 - Krysten Zummo – MN Grassland Ecologist
- Current WI priority is Driftless and Central WI
 - Starting with Thousand Hills Producers
 - Will include NW WI in next few years
- Current MN Priorities are Driftless, Central, NW
- Eventual expansion in Iowa & Missouri

Protocols

Habitat Management Plans use Protocols that incorporate:

- National standards
- Specifics catered to regions

Regional Developed Protocols

- Driftless
- Minnesota (Drafted)

Soon to Come

- Central Wisconsin



Partnerships

Wisconsin

- Contracted partners with Grassworks/Grassland 2.0 and Sand County Foundation
- Other partners include Driftless Area Land Conservancy, Golden Sands RC&D, Sauk County, USFWS, University of Wisconsin – Extension, Wisconsin DNR

Minnesota

- Minnesota DNR, Pheasants Forever, Sustainable Farming Association, USDA/NRCS, University of Minnesota, USFWS

Interested in Partnering with ACR? Let us know!





Audubon



Questions?