Review of Conservation Challenges and Possible Solutions for Grassland Birds of the North American Great Plains

Grassland birds have long been recognized as one of the most steeply declining avian guilds in North America. This unique and diverse group of birds includes many species that were once synonymous with the open grassland and farmland landscapes of North America’s Great Plains. For example, the iconic Eastern Meadowlark, known for its sweet song and brilliant yellow coloring, has declined by 75% over the past 50 years. A recent review published in the Journal of Rangeland Ecology & Management highlights how, despite increased conservation attention in recent decades, grassland birds continue to face numerous threats from habitat loss and degradation. At the same time, the authors of the review emphasize that there are many actions that can be taken to conserve and protect North America’s grassland birds.

The review finds that the largest contributors to grassland bird declines include threats such as continued grassland habitat loss driven by conversion to row-crop agriculture, energy development, use of pesticides and neonicotinoid compounds, and climate change. Importantly, the review suggests that these threats can be mitigated in many ways through the action of governments and agencies, as well as individuals. For example, strong investment in government programs such as the Conservation Reserve Program show promise as a means of conserving grassland bird habitat. Similarly, regulation of lethal neonicotinoid compounds and environmental management requirements for energy and utility companies could greatly benefit grassland birds. At the same time, approximately 80% of North American grasslands are privately owned, thus farmers and ranchers can also play an important role through improved fire and grazing management, regenerative agricultural practices, and maintaining natural areas, such as prairie strips, in agricultural landscapes. Government and NGO incentives, cost-shares, and technical assistance to support these efforts and make alternative practices feasible for landowners are critical. Finally, continued work by researchers to study poorly understood aspects of grassland bird ecology, such as migratory and overwintering periods, are also a key piece of the puzzle.

Scientists estimate we have lost approximately three billion birds in the past 50 years, with half of those being grassland species. However, it is not only birds that depend on our grasslands. North America’s grasslands provide critical support for agriculture, food security, rural communities and the economy through key environmental functions including water supply, soil health, climate resiliency, biodiversity, and carbon sequestration. As grasslands disappear, so do many of the benefits they provide—and more than 50 million acres of grassland have been lost in the last 10 years. Many people are unaware of the benefits that grasslands provide, and what their loss may mean for future generations. For example, between 1990 and 2019, ranchers in the Western United States lost nearly $5 billion worth of forage (grass for livestock grazing) because of invasive woody encroachment (shrubs and trees). The amount of forage lost over those three decades equates to 332 million tons, or enough hay bales to circle the globe 22 times. The cultural heritages of those that tend the land and call it home—from ranchers to Indigenous Peoples to ejidos—are also closely tied to the fate of grasslands. Given the important ecological, cultural, and economic roles that grasslands play in North America, the need to conserve them has never been more urgent.
Publication was made possible by the Natural Resources Conservation Service, U.S. Department of Agriculture under agreement NR196740XXXXG008. The USDA is an equal opportunity provider, employer, and lender.

Additional Resources

World Wildlife Fund publishes a Plowprint Report which analyzes the rate of grasslands plow-up across the US, Canadian, and Mexican portions of the Great Plains. Read the 2022 report.

With 3 billion birds gone since 1970 the call to action is vital. Read how just 7 Simple Actions can help Birds and learn more about why birds matter. #BringBirdsBack.

The Center for Conservation Media at the Cornell Lab of Ornithology worked with the National Fish and Wildlife Foundation (NFWF), the nation’s largest private conservation grant-maker, to produce four films about ongoing projects in Nebraska, South Dakota, and Montana supported by NFWF. Each of these pieces tells its own story about grassland conservation, through the lens of bird conservation, invasive woody shrubs and trees and partnerships with landowners. Together, they showcase the power of partnership to achieve conservation goals in working lands. “Mending Fences”, “Reconsidering Cedar”, “Vital Signs”, “Uncrossed Arms”.

The Central Grasslands Roadmap is a collaborative guide to increase conservation of North America’s Central Grasslands, which span acres across Indigenous Lands, Canada, the United States and Mexico.

The documentary Kiss the Ground, narrated by Woody Harrelson, highlights the importance of our soils and how regenerative farming and ranching can bolster carbon sequestration. The film can be streamed on Netflix or schools can stream for free.

Make your voice heard as a consumer: Buy Audubon-Certified Bird Friendly beef! Audubon’s Conservation Ranching program works with producers to raise beef in a sustainable way that also benefits wildlife habitat. Ask your local grocer to include it in their product line, if they don’t already. You can even mail-order product from retailers—check out Audubon’s online guide.

Learn more about the North American Grasslands Conservation Act (NAGCA). This proposed U.S. legislation would establish a grant program to provide landowners with voluntary economic incentives to conserve and restore our disappearing grasslands. If you like what you see and agree this is important, we hope you will show your support and let your elected representatives know how you feel! Follow #ActForGrasslands on social media for the latest news and updates.
Bird Conservancy of the Rockies is a Colorado-based nonprofit that works to conserve birds and their habitats through an integrated approach of science, education and land stewardship. Our work extends from the Rockies to the Great Plains, Mexico and beyond. Together, we are improving native bird populations, the land and the lives of people. We envision a world where birds are forever abundant, contributing to healthy landscapes and inspiring human curiosity and love of nature. Visit birdconservancy.org for more information