

FOSTERING GRASSLAND BIRDS

The key to having birds to enjoy is providing the habitat they need.

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Do you have favorite birds that you especially enjoy? For me, the song of the western meadowlark on a spring day always brings a smile, and every time I see a bald eagle I fondly remember the first time I did so on a family rafting trip more than 40 years ago. Sometimes I even laugh out loud when I see a red-winged blackbird, recalling the first time my Mom saw one and innocently asked my Dad the name of that black bird with red wings.

The key to having birds to enjoy is providing the habitat they need. Grassland-dependent birds, in particular, are in critical need of better habitat to help them rebound from severe population declines over the past several decades. Most of the declines are due to the conversion of rangelands and pastures to row-crop agriculture and to urban-suburban-exurban development. Providing high quality habitat on the remaining open spaces has never been more important to maintain populations.

One challenge to providing high-quality grassland bird habitat is that all grassland birds do not prefer the same kind of habitat, and many species require varied habitat

during different stages of life. For these reasons, grassland stewardship that promotes habitat diversity generally improves overall habitat for grassland birds. Sage-grouse, for example, usually prefer to nest where sagebrush canopy cover is 15 to 25 percent and where grasses near sagebrush plants are at least seven inches high. After nesting, however, sage-grouse seek meadows and openings with less sagebrush canopy and where herbaceous vegetation is only two to six inches tall, enabling juvenile sage-grouse to find and eat weedy forbs and insects. Forbs also comprise 20 to 50 percent of the diets of pre-laying hens as they prepare to nest and reproduce, and these forbs are generally found where sagebrush canopy cover is less than 15 percent. Table 1 highlights general preferences for grass height by several grassland birds in Montana.

Livestock Grazing Guidelines to Foster Grassland Bird Habitat

Grassland bird species native to Montana developed amidst grazing by large animals such as bison, elk, deer, and pronghorn antelope. Similarly, properly managed livestock grazing can provide high-quality habitat for grassland birds.

Light to moderate grazing intensities, especially at low stock densities, result in varied degrees of grazing across a pasture. Some areas within a pasture are grazed lightly, some moderately, others grazed heavily, while other areas remain ungrazed. In this way, light to moderate livestock grazing at low stock densities (i.e., a low number of animals per unit area) creates the vegetation patchiness needed by most grassland birds. Patches vary in plant height and contain varied amounts of grasses and forbs. Lightly grazed or ungrazed patches provide residual cover greater than six inches tall that is important for nesting by most grassland





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birds. Moderately grazed patches are four to six inches tall after grazing and increase birds’ access to foods such as grasshoppers, beetles, and ants. Heavily grazed patches are less than four inches tall after grazing and often grow more forbs, which provide food for many species of birds. Small mammals such as ground squirrels, rabbits, and mice also increase wherever large animal grazing (or mowing) opens up dense plant canopies which, in turn, increases the prey base for eagles, owls, hawks, and other raptors. Locations of supplemental feed for livestock, water troughs, livestock herding, and fencing can all be used to distribute livestock

grazing and purposely create the mosaic of vegetation patchiness desired by grassland birds.

Rotational grazing at higher stock densities also can be used to purposely create habitat structure and plant composition that favors grassland birds. An effective strategy for creating habitat structure is to use rotational grazing to apply heavy grazing once every three to four years during late spring-early summer. This heavy grazing treatment should last no more than three to four weeks per year and should be limited to only 20 to 30 percent of the habitat each year. Livestock grazing should be excluded from another 20 to 30 percent of the habitat each year, while the remaining 40 to 60 percent of the habitat each year receives light to moderate grazing pressure.

TABLE 1. Grass height preferences of grassland birds.

Species	Grass Height		
	< 4 inches	4-6 inches	> 6 inches
Baird’s sparrow		•	
Bobolink		•	
Chestnut-collared longspur		•	
Common nighthawk	•		
Ferruginous hawk	•		
Grasshopper sparrow		•	
Horned lark	•		
Hungarian (gray) partridge			•
Killdeer	•		
Lark bunting		•	
Long-billed curlew	•		
McCown’s longspur	•		
Mountain plover	•		
Mourning dove		•	
Ring-necked pheasant			•
Sprague’s pipit		•	
Western meadowlark		•	

Mowing Guidelines to Foster Grassland Birds

Mowing or swathing grasslands or hayfields can disturb nesting birds. Delaying mowing as long as possible into the summer, preferably until after nesting ends in mid- to late-July, improves nesting success. If mowing must begin earlier, fields with higher densities of nesting birds can purposely be left to mow last. If you flush birds while mowing, slow your speed to increase the chances that birds can escape. Another helpful practice is to begin mowing fields from the center. The traditional practice of harvesting a field from the outside edge towards the center concentrates birds into a smaller and smaller space as they try to avoid the machinery, increasing the odds of birds getting killed by the machinery. An alternative is to begin harvesting a field from the center and working towards the outside edges. This option encourages grassland birds and other animals to scatter outwards, away from the machinery. Leaving unmowed strips within fields also improves bird survival. ■