

Grassland Birds (Reprinted from the Saskatchewan Forage Council's *Saskatchewan Hay and Pasture Report* – August 27, 2009 issue)
*Peggy Strankman, Manager, Environment
Canadian Cattlemen's Association*

What do meadow larks, Swainson's hawks and loggerhead shrikes have in common? Well firstly they are commonly recognized birds that have the good sense to winter in the south. Secondly they are part of what's called a guild of grassland birds and the guild is declining more rapidly than any other group of birds in Canada.

There seems to be general agreement in the science community that the main cause of these declines in bird populations is habitat loss. Generally speaking the populations are not declining in areas with more rangeland. There is also fairly broad support in the science community that managed grazing is the most appropriate land use to maintain a healthy functioning ecosystem and the bird communities.

Although most of the habitat loss occurred during the settlement of the prairies, native grassland is still being converted to urban and ranchette use. Reproduction and survival decrease for many of the grassland bird species when near human development. Of course the habitat is often altered but the birds also react negatively to increased noise and general disturbance and predation often increases.

Many species will not utilize any type of tame forage. Planted pastures have a different structure than native grasses, particularly in the litter layer, that the birds find less appealing. Generally birds nesting in crops or hay have lower productivity.

Interestingly range condition may be almost as important as habitat loss. Trees and shrubs have invaded since the suppression of fire. Shrubs provide cover for rodents and predation on nests and young increases. Reduced range condition decreases the grasslands ability to survive drought conditions and so decreases bird survival opportunities. Productivity and occupancy can also be affected by factors such as invasive plants, roads, energy extraction and habitat fragmentation.

To better understand the decline of the grassland dependent birds it is helpful to know more about the ecology of the area prior to European settlement. The northern great plains are a unique ecosystem and appreciation of that has been slow to come.

Southern Saskatchewan, southeastern Alberta and southwestern Manitoba in Canada and much of Montana, north Dakota, south Dakota and northeastern Wyoming are grouped into an area called the northern plains. Flat and sometimes rolling, with prairie potholes the precipitation is low and there are periodic droughts. The northern plains include mixed-grass, moist mixed-grass and aspen parkland ecoregions.





Lack of moisture and generally poorer soils were the primary drivers keeping the area in grass. Grazing and fire were important but secondary drivers determining the height and density of herbage, and the amount of litter and shrub invasion. These four factors varied in time and space making the northern plains a dynamic varied landscape.

Bison, pronghorn and elk grazed the area, sharing grass with Richardson's ground squirrels and black-tailed prairie-dogs. It is thought that the bison probably grazed some areas fairly hard

but then the herds might not return to that area for several years. This would have resulted in a mosaic of vegetation patches, Fires caused by lightning strikes and set by First Nations people added to the variation across the landscape.

As previously noted the uniqueness of the prairies is relatively recently appreciated. The importance and methods of conservation of this ecozone and its associated bird species and other is just beginning to be understood.

Thanks to Environment Canada staff for providing reference material.

Conservation of Grassland Birds in North American: Understanding Ecological Processes in Different Regions. Report of the AOU Committee on Conservation.

<http://www.aou.org/committees/conservation/>

Bird Trends

<http://www.cws-scf.ec.gc.ca/mgbc/trends/index.cfm?lang=e&go=info.GuildTrendHabitat&GuildID=3>