

## Nature Notes, January 2024

### Decline of Some Bird Populations is Cause for Concern

By Jim Lee

You may not know that an important survey of breeding birds in Saskatchewan was completed in 2022. Called the Saskatchewan Breeding Bird Atlas, it was an ambitious five-year project by Birds Canada to map the distribution and relative abundance of breeding birds across the province for the very first time.

Projects such as the Breeding Bird Atlas are important because they allow us to document the status of birds in our province and monitor changes (both positive and negative) in bird populations which may result from natural events and human influence. Using data from 1970 to 2016 from across North America, the North American Bird Conservation Initiative (NABCI) - a consortium of federal, provincial, and territorial governments, conservation NGOs and the private sector - has provided some startling information about the state of Canada's birds over the last few decades.

While populations of some groups of birds appear to be healthy and growing (waterfowl up 150% and birds of prey up 110%), three groups appear to be in a stark, rapid decline: shorebirds down 40%, aerial insectivores down 59%, and grassland birds down 57%.

Shorebirds depend on coastal areas and inland wetlands for breeding, migration, and wintering. Many shorebirds migrate thousands of kilometres every year, up to 30,000 "frequent flier" points (1 pt = 1 km) every year! While many shorebirds nest in the Arctic or sub-Arctic, where their breeding habitats are largely preserved, it is the loss of their wintering grounds through human development, for example along the Gulf of Mexico, which is thought to be one of the main reasons for decreasing numbers.

Interestingly, aerial insectivores (birds that catch insects on the "fly", such as flycatchers and swallows) also appear to be on the decline. Several reasons appear to be responsible, including loss and degradation of habitat (wetlands, grasslands, and forests) and the widespread and systematic use of pesticides. Climate change may also have an impact, as the increasing number and severity of extreme weather events can disrupt breeding, migration patterns, and even the availability of flying insect populations.

The decline in grassland bird populations is particularly alarming for those of us living on the Prairies. Birds which are almost entirely dependent on native grasslands have declined, on average, by 87%. Even the populations of species which are tolerant of agricultural landscapes have declined by 39%. The main reason appears to be habitat loss (e.g. conversion of grasslands to crop production) and degradation. It is estimated that 75-90% of native prairie has been lost (SK has lost ~83% of its native prairie). Degradation of



The Chestnut-collared Longspur is one of the grassland species threatened by habitat loss. Photo by Nick Saunders

habitat also results from resource extraction, such as oil and gas.

Other drivers appear to be the gradual encroachment of shrubs and other woody plants on the grasslands and the influx of invasive plant species - both of which reduce grassland areas. Interestingly, it appears that cattle ranching is critical to the conservation of native grasslands, as most of the remaining grassland habitat is owned by cattle producers. Because prairie plants and wildlife have adapted and evolved with grazing over several decades, continued cattle grazing is now deemed essential by organizations like Birds Canada to preserve valuable grassland bird habitat.

The point is that none of these important findings would have been possible without up-to-date and accurate bird surveys. And of course, this would not be possible without the efforts of volunteers like you and me. If you are interested in helping our prairie birds by participating in a bird survey, please don't hesitate to contact your local nature society.

*Jim Lee is President of the Saskatoon Nature Society. The next bird count in the Saskatoon area will be held in late May. Watch for details at <https://saskatoonnature.org/scheduled-trips/>*