



Lark Bunting

Photo: © Marcel Gahbauer



Scientific name

Calamospiza melanocorys

Taxon

Birds

COSEWIC Status

Threatened

Canadian range

Alberta, Saskatchewan, Manitoba

Reason for Designation

This grassland songbird is at the northern edge of its range in the Canadian Prairies. It is nomadic, with breeding populations shifting considerably from year to year to track favourable conditions across the regional landscape, seeking peak abundance of grasshoppers. Population estimates therefore fluctuate substantially and complicate the estimation of short-term trends, but long-term data show a decline of 98% since 1970. Over most of the past decade, the trend has remained strongly negative. Conversion of grassland habitat and insecticide use are believed to be the primary threats to this species.

Wildlife Species Description and Significance

Lark Bunting is a large chunky sparrow with a short tail and relatively large bill. Males have a distinctive black and white breeding plumage, but resemble females in the nonbreeding season. Females are greyish-brown with black streaking on their upperparts and dark brown wings with a whitish patch. Juveniles are similar to females in pattern, but are buff-coloured with more streaking.

No subspecies have been described for the species and it is the only member of its genus. Lark Bunting is the state bird of Colorado.

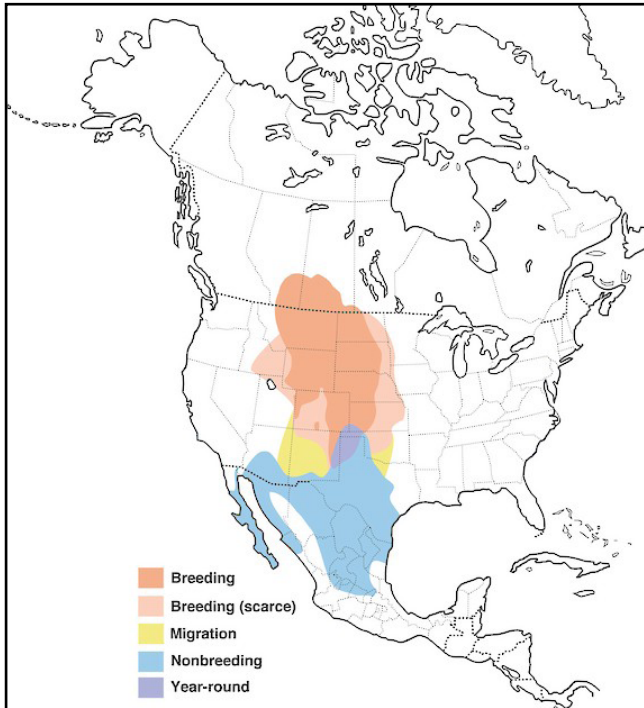


Photo: © Marcel Gahbauer

Photo of a male Lark Bunting with his breeding plumage.

Distribution

Lark Bunting is restricted to breeding in the grasslands of west-central North America, from the southern Canadian prairies through the Great Plains of the central US into northern Mexico. In Canada, Lark Buntings are found in southeastern Alberta, southern Saskatchewan, and southwestern Manitoba. Lark Buntings spend the non-breeding season in the southwest US and north-central Mexico.



Distribution of Lark Bunting showing breeding, migration, nonbreeding, and year-round ranges in North America.

Source: Map provided by Birds of America online (<https://birdsna.org/Species-Account/bna/home>), Cornell Lab of Ornithology

Habitat

Lark Buntings occur in a variety of grassland habitats, including shortgrass and mixed-grass prairie, weedy fallow fields, pastures, and croplands. They prefer habitat with a combination of grass, shrubby vegetation and bare ground for nesting. Shrubs or tall grasses near the nest provide shading and concealment from predators. In Canada, the species appears to use managed agricultural areas such as hayfields, cultivated grasslands and roadside ditches, in addition to native grasslands. During the non-breeding season, Lark Buntings are found in flat open areas including plains, cropland, fields and desert flats.

Biology

Lark Buntings are believed to nest once per year, laying 3-5 eggs per clutch. The mean number of young fledged per nest ranges from 1.2 to 3.1 depending on habitat type.

Lark Buntings have evolved several adaptations to deal with the environmental instability that characterizes their grassland habitat. They are highly nomadic from year to year, a behaviour which appears to

have evolved to track favourable habitat conditions across a changing landscape. Lark Buntings also time nesting to coincide with peak abundance of grasshoppers, a major component of their diet. Nest-site selection is linked to minimizing heat stress for eggs and nestlings, as well as for the dark-plumaged incubating male. Once chicks leave the nest, male and female parents divide the brood and continue parental care separately, a strategy that reduces predation and increases foraging efficiency, especially during droughts.

Lark Buntings are frequent hosts of Brown-headed Cowbirds but do not appear to have evolved any avoidance strategies against this brood parasite. Numerous predators feed on Lark Buntings, including owls, raptors, cats, Coyotes, ground squirrels, weasels, and snakes.

Lark Buntings evolved with American Bison and other large native herbivores on their breeding grounds, and depend to some degree on grazing to maintain their habitat, particularly in taller grasslands.

Population Sizes and Trends

The total global breeding population of Lark Buntings is estimated to be 10 million individuals, with approximately 160,000 individuals breeding in Canada. Between 1970 and 2014, Lark Buntings declined by approximately 3.2% per year across North America and 8.6% per year in Canada, amounting to cumulative losses of 77% and 98%, respectively. Rates of decline have accelerated more recently, with a 6% per year decline across North America and a 14% per year decline in Canada between 2005 and 2015; the species is projected to lose half of its overall remaining population over the next 16 years. However, the inter-annual variability in Lark Bunting distribution and abundance caused by the highly nomadic nature of the species may result in misleading snapshots of short-term regional population trends. An examination of rolling 10-year trends in Canada (in which one point per year represents the average annual percent change over the previous 10-year period) shows a tendency toward strongly negative trends over both the short- (2005-2015) and long-term (1980-2015), although there is considerable variability over time. Interpolating from the long-term decline, the decline of the Canadian population over the past decade is estimated to be 59%.

Threats and Limiting Factors

Little is known about threats specific to the Canadian Lark Bunting population. Over much of the Great Plains, habitat loss, degradation, and fragmentation due to agriculture, urbanization and resource extraction are considered the primary threats to the species, along with effects of pesticides.

Grassland habitat is one of the most endangered ecosystems in North America. In Canada, over 70% of the prairie landscape has been degraded or lost since European settlement due primarily to agriculture and urbanization, and much of the remainder is highly fragmented.

Although some Lark Buntings breed in agricultural landscapes, their success may be lower in these habitats due to plowing, mowing and pesticide application. Pesticides may be of serious concern to Lark Buntings not only through direct lethal effects, but also through depleting populations of prey such as grasshoppers.

Oil and gas development on the prairies has also contributed to habitat loss and fragmentation for Lark Buntings, and associated sensory disturbance is also a concern. An increase in wind and solar farms poses a growing threat. Associated power lines can facilitate the presence of avian predators and cowbirds that pose threats to Lark Bunting survival and productivity.

Climate change is predicted to be an increasing threat for Lark Buntings. Continued warming, coupled with more frequent and intense droughts and large storm events, is likely to negatively affect the species. Lark Buntings are expected to lay fewer eggs, and have lower egg and chick survival under these conditions, while flooding from extreme rainfall may also lead to greater adult mortality.

A number of limiting factors make Lark Buntings susceptible to decline. They rely heavily on the availability of vegetative cover to minimize thermal stress while nesting. They are sensitive to drought conditions, when their main food (grasshoppers) is less abundant, and they experience increased competition with other grassland bird species and a resultant lower rate of recruitment. Conversely, they are also vulnerable to heavy rainfall events on the breeding grounds, and to fluctuations in seed availability on their wintering grounds.

Protection, Status, and Ranks

Lark Bunting is protected under the federal *Migratory Birds Convention Act* (1994) in Canada, under the federal *Migratory Bird Treaty Act* in the US and under the Convention for the Protection of Migratory Birds and Game Mammals in Mexico. Lark Bunting also receives provincial protection, under the *Alberta Wildlife Act*, the *Saskatchewan Wildlife Act*, and the *Manitoba Wildlife Act*. None of the preceding legislation has specific provisions for habitat protection.

Lark Bunting is classified as a species of least concern on the IUCN Red List. NatureServe designates it as globally secure and secure on the US breeding and nonbreeding grounds, because it is common and widespread. In Canada, it is ranked by NatureServe as apparently secure to secure overall, recognizing that there is cause for long-term concern because of declines or other factors. It is considered secure in Alberta, apparently secure to secure in Saskatchewan, and critically imperilled in Manitoba.

Lark Bunting is designated a species of continental importance under the Partners in Flight North American Landbird Conservation Plan because it is a common bird in steep decline.

Source: COSEWIC. 2017. COSEWIC assessment and status report on the Lark Bunting *Calamospiza melanocorys* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xi + 39 pp.

For more information, please visit www.sararegistry.gc.ca.

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