



Chestnut-collared Longspur

Photo: @ChristianArtuso



Scientific name

Calcarius ornatus

Taxon

Birds

COSEWIC status

Endangered

Canadian range

Alberta, Saskatchewan, Manitoba

Reason for designation

This striking grassland songbird is only found on North America's Great Plains. It has experienced a population decline of more than 50% over the past decade, and about 95% since 1970. The Canadian breeding range has contracted to the south and west since the 1970s. The primary threat is degradation and fragmentation of native grasslands, especially through conversion to agriculture. Ongoing loss of habitat in the core wintering region of northern Mexico is currently believed to be of greatest concern, but declines in habitat extent and quality are also an issue in Canada, where grassland parcels of at least 40 hectares are generally required for breeding.

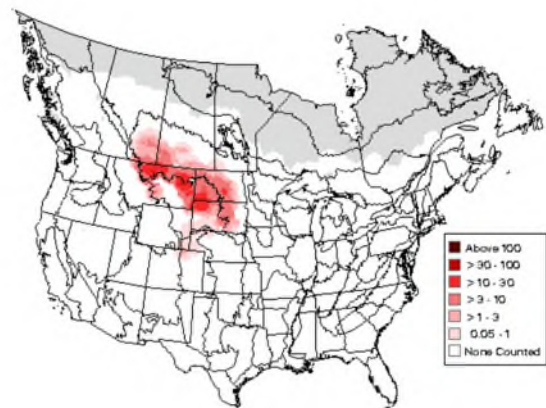
Wildlife Species Description and Significance

Chestnut-collared Longspur is a medium-sized songbird. It is one of two longspurs (family

Calcariidae) that nest in grassland. Breeding males are boldly marked, with a black breast, belly, crown, and eye-line contrasting with a buffy-yellow throat, whitish supercilium, and chestnut patch on the nape; in winter the pattern is heavily muted and more similar to the year-round overall buffy, streaked appearance of females. In all plumages, Chestnut-collared Longspur has an inverted dark triangle at the tip of its tail which distinguishes it from all other longspurs. Chestnut-collared Longspur is one of six passerine species endemic to the Great Plains of North America; five of them occur in Canada, and all have been assessed as at risk.

Distribution

Chestnut-collared Longspur breeds in the short- and mixed-grass prairie of the northern Great Plains of Canada and the United States. It overwinters in the short-grass and desert grassland of the southern United States and northern Mexico.



Summer distribution of Chestnut-collared Longspur

Source: COSEWIC. 2019. COSEWIC assessment and status report on the Chestnut-collared Longspur *Calcarius ornatus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xi + 46 pp.

Habitat

Chestnut-collared Longspur is a grassland specialist, preferring short (<30 cm) vegetation structure, low levels of litter accumulation, and minimal cover from woody vegetation. It is area-sensitive, requiring a minimum patch size of 39 ha for breeding. Chestnut-collared Longspur does not commonly occur in cropland during the breeding season. Preferred wintering habitat includes areas with dense grass cover or tall grass, but Chestnut-collared Longspur avoids areas with tall shrubs (>1.2 m) or forbs (>30 cm), or where shrub cover exceeds 10%. The amount of native grassland on both the breeding and wintering grounds has declined due to ongoing conversion of the habitat to annual cropland.

Biology

Chestnut-collared Longspur is socially monogamous. Males establish breeding territories, which are often clumped together. Females excavate and build a nest on the ground and lay 3-5 eggs which are then incubated for 11-13 days. The chicks fledge after 11 days (range 7-15 days). Pairs will attempt multiple clutches in one season, with a new nest built for each clutch. Generation time is likely two to three years. Predation is the primary cause of egg and nestling mortality.



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Population Sizes and Trends

The Chestnut-collared Longspur population in Canada is estimated at 680,000 mature individuals (range 360,000 to 1.2 million). Analysis of Breeding Bird Survey trends indicate that the Canadian Chestnut-collared Longspur population declined by an average of -6.6% per year (95% CL -8.0% to -5.3%; n = 99 routes) between 1970 and 2017, amounting to a cumulative change of -96% (95% CL -98% to -92%). This is similar to the sustained long-term decline of -92% (95% CI -94% to -89%) across the Great Plains between 1967 and 2014 (Wilson et al. 2018). The short-term trend (2007-2017) in Canada is similarly steep, at an average of -7.3% per year (95% CL -10.5% to -4.6%; n = 84 routes), and a cumulative total of -53% (95% CL -67% to -37%; Smith et al. 2019).

Threats and Limiting Factors

Threats to Chestnut-collared Longspur include habitat loss and fragmentation as a result of conversion of grassland for annual crops, energy production and mining, transportation and service corridors, natural system modifications, invasive species, agricultural effluents, fire suppression, and extreme weather events. The greatest threat currently is likely the conversion of native grasslands to annual agriculture in the Chihuahuan Desert grasslands of northern Mexico, a particularly important wintering area for Chestnut-collared Longspur.

A key limiting factor for Chestnut-collared Longspur is that it is an area-sensitive, grassland specialist, which means that the persistence of the species is dependent on large remaining tracts of native grassland habitat. The most limiting stage of the life cycle to population growth of Chestnut-collared Longspur is first-year survival, followed by first-year reproduction, particularly by yearling females.

Protection, Status and Ranks

COSEWIC designated Chestnut-collared Longspur as Threatened in November 2009. Its COSEWIC status was re-examined and designated Endangered in November 2019. The species is listed as Threatened on Schedule 1 of the *Species at Risk Act* and is protected under the *Migratory Birds Convention Act, 1994*. Provincially, the species is only protected in Manitoba where it is listed as Endangered under *The Endangered Species and Ecosystems Act*. NatureServe lists Chestnut-collared Longspur as 'Secure' globally (G5) and in the US (N5B, N5N), but 'Vulnerable' (N3B, N3M) in Canada. In Canada, the species is ranked as 'Vulnerable to Apparently Secure' (S3S4B) in Alberta, 'Vulnerable' (S3B) in Saskatchewan, and 'Imperiled to Critically Imperiled' (S1S2B) in Manitoba. Chestnut-collared Longspur is listed as Vulnerable by the IUCN and is a "D" Yellow Watch List species with Partners in Flight.

Source: COSEWIC. 2019. COSEWIC assessment and status report on the Chestnut-collared Longspur *Calcarius ornatus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xi + 46 pp.

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