Lapland Longspur

Calcarius lapponicus alascensis

Class: Aves

Order: Passeriformes

Review Status: Peer-reviewed

Version Date: 13 July 2020

Conservation Status

Table 1 Conservation status according to state, national, and international organizations and agencies.

Organization	Rank
NatureServe	G5/S5B
ADF&G	Species of Greatest Conservation Need
IUCN	Least Concern
Audubon AK	Watch

Final Rank

Conservation Category: **V. Orange**

Unknown status and either high biological vulnerability or high action need

Table 2 ASRS categorical scores. Higher numerical scores denote greater concern.

Category	Range	Score
Status	-20 to 20	0
Biological	-50 to 50	-38
Action	-40 to 40	4

Status

Variables measure the trend in a taxon's population status or distribution. Higher status scores denote taxa with known declining trends. Status scores range from -20 (increasing) to 20 (decreasing).

Population Trend in Alaska (-10 to 10)

Unknown.

Score: 0

Distribution Trend in Alaska (-10 to 10)

Unknown.

Score: 0

Status Total: 0

Biological

Variables measure aspects of a taxon's distribution, abundance and life history. Higher biological scores suggest greater vulnerability to extirpation. Biological scores range from -50 (least vulnerable) to 50 (most vulnerable).

Population Size in Alaska (-10 to 10)

PIF (2019) estimates the Alaskan population to be >25,000. Handel et al. (2009) estimated a population size of 161,000 (95% CI: 72,000-362,000) in Yukon-Charley Rivers National Preserve, which represents only a small portion of this species' range in Alaska.

Score: -10

Range Size in Alaska (-10 to 10)

Breeds north of the Brooks Range from the Yukon Territory to the west coast of Alaska, south through the Seward Peninsula, the Alaska Peninsula, Kodiak Island, and the Aleutian Islands. Patchy distribution in central Alaska (Hussell and Montgomerie 2020). Estimated range size is >400,000 sq. km., based on range map from ACCS (2017a).

Score: -10

Population Concentration in Alaska (-10 to 10)

Migrates in flocks up to 200 birds (West et al. 1968), but otherwise does not concentrate.

Score: -10

Reproductive Potential in Alaska

Age of First Reproduction (-5 to 5)

Attempts to breed at 1 year (Custer and Pitelka 1977).

Score: -5

Number of Young (-5 to 5)

Lays one clutch annually, and is capable of laying replacement clutches (Custer and Pitelka 1977). Clutch sizes range from 2 to 8 eggs, with a mean of 4.91 eggs (Custer and Pitelka 1977; Seastedt and MacLean 1979; Hussell and Montgomerie 2020).

Score: 1

Ecological Specialization in Alaska

Dietary (-5 to 5)

Diet consists of adult and juvenile arthropods (Custer and Pitelka 1978; Seastedt and MacLean 1979; Seastedt 1980; Custer et al. 1986) as well as seeds (sedge, grass, etc.; Gabrielson and Lincoln 1959; Custer and Pitelka 1978; Custer et al. 1986).

Score: -5

Habitat (-5 to 5)

Throughout Alaskan range, found in mesic and herbaceous dwarf shrub meadow habitats (Johnson and Herter 1989; Kessel 1989; Cotters and Andres 2000a; Gibson and Byrd 2007; Gibson 2011). Nests are placed on the side of hummocks, knolls, polygon ridges, or clumps of

grass, but can also sometimes be placed on flat ground (Johnson and Herter 1989; Kessel 1989; Gibson and Byrd 2007; Gibson 2011).

Score: 1

Biological Total: -38

Action

Variables measure current state of knowledge or extent of conservation efforts directed toward a given taxon. Higher action scores denote greater information needs due to lack of knowledge or conservation action. Action scores range from -40 (lower needs) to 40 (greater needs).

Management Plans and Regulations in Alaska (-10 to 10)

Protected under the Migratory Bird Treaty Act (MBTA 1918).

Score: 2

Knowledge of Distribution and Habitat in Alaska (-10 to 10)

Distribution and habitat association is well known and described through several studies and surveys (Gabrielson and Lincoln 1959; Kessel 1989; Rodrigues 1994; Gibson and Byrd 2007; Liebezeit et al. 2011; Phillips et al. 2017; Amundson et al. 2018; Savage et al. 2018).

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Score: -10

Knowledge of Population Trends in Alaska (-10 to 10)

Not currently monitored.

Score: 10

Knowledge of Factors Limiting Populations in Alaska (-10 to 10)

A few modeling studies (Boelman et al. 2015; Thompson et al. 2016; Oliver 2019) suggest that as the climate warms and shrub encroachment occurs, while food supply may increase, nesting habitat may significantly decrease for this species. And while breeding biology (Williamson and Emison 1971; Seastedt and MacLean 1979; Liebezeit et al. 2011, 2014; Krause et al. 2016; Perez et al. 2016; Chmura et al. 2018) and migration (Irving 1961; West et al. 1968) have been well studied for this species, there is no agreement about the limiting factors for this species in Alaska.

Score: 2

Action Total: 4

Supplemental Information

Variables do not receive numerical scores. Instead, they are used to sort taxa to answer specific biological or management questions.

Harvest: None or Prohibited

Seasonal Occurrence: Breeding

Taxonomic Significance: Monotypic species

% Global Range in Alaska: <10%

% Global Population in Alaska: <25%

Peripheral: No

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Alaska Species Ranking System – Lapland Longspur

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