

Common Redpoll

Acanthis flammea

Class: Aves

Order: Passeriformes

Review Status: Peer-reviewed

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Conservation Status

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

Organization	Rank
NatureServe	G5/S5
ADF&G	Species of Greatest Conservation Need
IUCN	Least Concern

Final Rank

Conservation Category: **II. Red**

High 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	6
Biological	-50 to 50	-38
Action	-40 to 40	16

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)

In Alaska, estimated to be declining by 2.6% per year (95% CI = -4.8%, -0.2%) (Sauer et al. 2017, Table S2). The credibility score associated with these estimates is "Q" = "questionably monitored", which means that estimates have at least one deficiency (Sauer et al. 2017). To account for this uncertainty, we rank this question as B- Suspected to be declining.

Score: 6

Distribution Trend in Alaska (-10 to 10)

Unknown.

Score: 0

Status Total: 6

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)

Unknown, but likely >25,000 given its widespread distribution, commonness in many parts of its range, and the sighting of large groups of individuals (Petersen et al. 1991; Cotter and Andres 2000a; Knox and Lowther 2000b; Tibbitts et al. 2006).

Score: -10

Range Size in Alaska (-10 to 10)

During breeding, distributed throughout most of the state except for parts of southeast Alaska. Also widely distributed during winter, though most breeders on the Arctic Coastal Plain migrate to western, southwestern, and south-central Alaska (Knox and Lowther 2000b). Winter range >400,000 sq. km, calculated in GIS and based on range maps from ACCS (2017a).

Score: -10

Population Concentration in Alaska (-10 to 10)

Can form flocks of up to a few thousand individuals, but does not concentrate at specific spatial locations (Knox and Lowther 2000b).

Score: -10

Reproductive Potential in Alaska

Age of First Reproduction (-5 to 5)

Can breed at 1 year (Troy and Shields 1979; Knox and Lowther 2000b).

Score: -5

Number of Young (-5 to 5)

3-5 eggs per clutch (Maher 1959; Troy and Shields 1979; Kessel 1989). There is some evidence to suggest that females can produce two broods during a summer, but additional data are needed to confirm this idea and determine its frequency (Maher 1959; Riggensberg and Winker 2015; but see Troy and Shields 1979).

Score: 1

Ecological Specialization in Alaska

Dietary (-5 to 5)

Feeds predominantly on seeds from a variety of plants including birch (*Betula sp.*), alder (*Alnus sp.*), spruce (*Picea sp.*), fireweed (*Chamerion angustifolium*), goosefoot (*Chenopodium sp.*), and graminoids (White and West 1977; Kessel 1989; Knox and Lowther 2000b). In the summer,

about 20-25% of its diet is comprised of invertebrates such as flies, caterpillars, and spiders (White and West 1977; Knox and Lowther 2000b).

Score: -5

Habitat (-5 to 5)

In Alaska, typically breeds in low and tall shrub habitats, especially willow and alder, within tundra, forests, and coastal areas (Troy and Shields 1979; Spindler and Kessel 1980; Gill et al. 1981; Petersen et al. 1991; Johnson et al. 2008b). Commonly detected along river corridors (Gill et al. 1981; Petersen et al. 1991; Johnson et al. 2008b). Nests are placed on low branches of shrubs or on the ground within the shrub (Maher 1959; Spindler and Kessel 1980; Kessel 1989). Foraging and non-breeding habitat is more general, and includes meadows and spruce forests (Spindler and Kessel 1980; Kessel 1989; Gibson and Byrd 2007).

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 of 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 associations are broadly known through multi-species bird surveys, during which it is commonly detected (e.g. Isleib and Kessel 1973; Tibbitts et al. 2006; Saracco et al. 2007; Amundson et al. 2018; see references in Habitat section). However, its range is not well-defined because it is difficult to distinguish between the common and hoary redpoll.

Score: 2

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

Monitored in parts of its range through the Breeding Bird Survey (Sauer et al. 2017). Sauer et al. (2017) considered this species to be "questionably monitored" in Alaska to indicate that estimates have at least one deficiency. Reliable assessments of population trends are further complicated by the facts that common and hoary redpolls can be difficult to distinguish in the field, and both can exhibit irruptive movement patterns (Troy 1983; Knox and Lowther 2000b). To account for these uncertainties, we rank this question as B- Statewide monitoring inadequate to detect trend.

Score: 2

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

Little is known about the factors that limit this species' population in Alaska or elsewhere. Seed abundance may influence certain aspects of redpoll ecology e.g., by contributing to irruptive

movement patterns (Troy 1983; Knox and Lowther 2000b). In contrast, a study in Fairbanks by Ringgenberg and Winker (2015) found no relationship between the production of young and last year's seed crop. Additional studies are also needed to determine the effects of climate change, which is expected to decrease habitat slightly by 2100 (Marcot et al. 2015).

Score: 10

Action Total: 16

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: Year-round

Taxonomic Significance: Monotypic species

% Global Range in Alaska: <10%

% Global Population in Alaska: <25%

Peripheral: No

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