

Red-winged Blackbird

Agelaius phoeniceus

Class: Aves

Order: Passeriformes

Review Status: Reviewed (general)

Version Date: 28 November 2022

Conservation Status

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

Organization	Rank
NatureServe	G5/S4
ADF&G	Species of Greatest Conservation Need
IUCN	Least Concern
Audubon Alaska	Watch

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	-20
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)

Based on data from the Breeding Bird Survey from 1993-2014, Sauer et al. (2017) estimates that the Red-winged Blackbird is declining in Alaska at a rate of 1.7% per year. Although this estimate is not statistically significant (95% CI [-4.9, 1.2]), it mirrors long-term, continental declines that have been observed for this species (Sauer et al. 2013; Warnock 2017c). Sauer et al. (2017) consider this species to be poorly monitored in Alaska, which may make it more difficult to detect significant trends.

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)

Population estimates are highly uncertain. PIF (2019) estimates the Alaska population at 21,000 birds, 95% CI [4,400, 48,000]. Because these estimates span 3 answer choices, we rank this question as 0- Unknown.

Score: 0

Range Size in Alaska (-10 to 10)

Breeds on the mainland and islands of Southeast Alaska north to Fairbanks and west to the Cook Inlet region (Kessel and Gibson 1978; eBird 2023). While some individuals overwinter in Southeast Alaska, on the Kenai Peninsula, or around the Anchorage area, most of the population likely overwinters outside of Alaska (eBird 2023; Yasukawa and Searcy 2019). We therefore calculate range size for the breeding season, and estimate it to be ~339,000 sq km, based on the range map from ACCS (2017a).

Score: -8

Population Concentration in Alaska (-10 to 10)

Can form small flocks or roosts during the non-breeding season (Yasukawa and Searcy 2019). Observations in Alaska do not suggest large aggregations in general or at predictable locations (Kessel and Gibson 1978; eBird 2023).

Score: -10

Reproductive Potential in Alaska

Age of First Reproduction (-5 to 5)

Unknown in Alaska. Elsewhere in their range, females usually breed in their second year (Yasukawa and Searcy 2019).

Score: -5

Number of Young (-5 to 5)

Females lay a single clutch per year (Yasukawa and Searcy 2019). A study in Northway, Alaska documented a mean size of 4.3 eggs (McGuire 1986). Elsewhere in the state, clutch sizes typically range from 3 to 6 (Gabrielson and Lincoln 1959; Kessel and Gibson 1978).

Score: 1

Ecological Specialization in Alaska

Dietary (-5 to 5)

Little information available. During breeding season away from agricultural areas, feeds primarily on insects (Yasukawa and Searcy 2019). Studies elsewhere in Alaska point to a diet consisting of various insect orders and families, though nestlings may be preferentially fed larger food items, and nymphs and larvae, rather than adults (Hintz and Dyer 1970; Wilson 1978). Plant matter comprises a larger part of their diet during the non-breeding season and in

habitats close to agricultural areas (Hintz and Dyer 1970; Yasukawa and Searcy 2019). Because invertebrates are an ephemeral and potentially unpredictable food source (e.g. Nebel et al. 2010), we rank this question as B- Moderately adaptable with key requirements common.

Score: 1

Habitat (-5 to 5)

Little information available for Alaska. Typically breeds in freshwater marshes with emergent vegetation (McGuire 1983; Johnson et al. 2008b). Nests are placed in shoreline vegetation such as cattails, grasses, and reeds (Yasukawa and Searcy 2019). Shrub thickets and agricultural areas can also constitute breeding habitat (Yasukawa and Searcy 2019), though these breeding habitats have not been formally documented in Alaska.

Score: 1

Biological Total: -20

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)

Range is somewhat known, however, the extent of this species' breeding range and of its overwintering range has not been well-studied (Kessel and Gibson 1978). While individuals do overwinter in Alaska, it is unclear what proportion of the population remains and where other individuals migrate to. General habitat associations are known (McGuire 1983; Johnson et al. 2008b), but specific studies are lacking, especially in upland habitats.

Score: 2

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

Detected during Breeding Bird Surveys. Although trend estimates are available, it is uncommonly seen on routes, is not detected throughout most of its range, and is considered "poorly monitored" (Sauer et al. 2017).

Score: 2

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

Very few studies have considered the ecology of Red-winged Blackbirds in Alaska. A study in Northway, Alaska found very high levels of nest and fledgling success compared to studies elsewhere in North America (McGuire 1983). During the course of his study, McGuire (1983) did not observe any instances of nest predation and very little interspecific competition for nest sites or food. Studies elsewhere in its range have noted that these factors, and nest predation in particular, have a significant impact on reproductive success (Grandmaison and Niemi 2007; Yasukawa and Searcy 2019). The abundance of insects has also been linked to nest success

and to population size (Yasukawa and Searcy 2019). It is unclear why populations of Red-winged Blackbird are declining at a continental scale.

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: Breeding

Taxonomic Significance: Monotypic species

% Global Range in Alaska: <10%

% Global Population in Alaska: <25%

Peripheral: No

References

- Alaska Center for Conservation Science (ACCS). 2017a. Wildlife Data Portal. University of Alaska Anchorage. Available online: <http://aknhp.uaa.alaska.edu/apps/wildlife>.
- eBird. 2023. eBird: An online database of bird distribution and abundance. eBird, Ithaca, NY, USA. Available online: <http://www.ebird.org>.
- Gabrielson, I. N., and F. C. Lincoln. 1959. The Birds of Alaska. The Stackpole Company, Harrisburg, PA, USA.
- Grandmaison, D. D., and G. J. Niemi. 2007. Local and Landscape Influence on Red-winged Blackbird (*Agelaius phoeniceus*) Nest Success in Great Lakes Coastal Wetlands. *Journal of Great Lakes Research* 33:292–304.
- Hintz, J. V., and M. I. Dyer. 1970. Daily Rhythm and Seasonal Change in the Summer Diet of Adult Red-Winged Blackbirds. *The Journal of Wildlife Management* 34(4):789-799.
- Johnson, J. A., B. A. Andres, and J. A. Bissonette. 2008b. Birds of the major mainland rivers of Southeast Alaska. General Technical Report PNW-GTR-739. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, Portland, OR, USA.
- Kessel, B., and D. D. Gibson. 1978. Status and distribution of Alaska birds. *Studies in Avian Biology* No. 1. Allen Press, Lawrence, KS, USA.
- Migratory Bird Treaty Act (MBTA). 1918. U.S. Code Title 16 §§ 703-712 Migratory Bird Treaty Act.
- McGuire, A. D. 1983. The breeding biology of the Red-winged Blackbird (*Agelaius phoeniceus*) in eastern interior Alaska. M.S. Thesis, University of Alaska, Fairbanks, AK.
- McGuire, A. D. 1986. Some Aspects of the Breeding Biology of Red-Winged Blackbirds in Alaska. *The Wilson Bulletin* 98(2):257–266.
- Nebel, S., A. Mills, J. D. McCracken, and P. D. Taylor. 2010. Declines of aerial insectivores in North America follow a geographic gradient. *Avian Conservation and Ecology* 5(2):art1. DOI: 10.5751/ACE-00391-050201

Partners in Flight (PIF). 2019. Population Estimates Database, version 3.0. Available online: <http://pif.birdconservancy.org/PopEstimates> [accessed 09 April 2019].

Sauer, J. R., W. A. Link, J. E. Fallon, K. L. Pardieck, and D. J. Ziolkowski. 2013. The North American Breeding Bird Survey 1966–2011: Summary analysis and species accounts. *North American Fauna* 79:1–32. DOI: 10.3996/nafa.79.0001

Sauer, J. R., D. K. Niven, K. L. Pardieck, D. J. Ziolkowski, and W. A. Link. 2017. Expanding the North American Breeding Bird Survey analysis to include additional species and regions. *Journal of Fish and Wildlife Management* 8(1):154–172. DOI: 10.3996/102015-JFWM-109

Warnock, N. 2017c. The Alaska WatchList 2017, Declining. Audubon Alaska, Anchorage, AK, USA.

Wilson, S. W. 1978. Food size, food type, and foraging sites of Red-winged Blackbirds. *The Wilson Bulletin* 90(4):511–520.

Yasukawa, K., and W. A. Searcy. 2019. Red-winged Blackbird (*Agelaius phoeniceus*), version 1.0. In Rodewald, P. G., ed. *Birds of the World*, Cornell Lab of Ornithology, Ithaca, NY, USA. DOI: 10.2173/bow.rewbla.01

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