Herring Gull

Larus argentatus

Class: Aves

Order: Charadriiformes

Review Status: Reviewed (general)

Version Date: 02 February 2023

Conservation Status

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

Organization	Rank	
NatureServe	S3/G5	
ADF&G	Species of Greatest Conservation Need	
IUCN	Least Concern	

Final Rank

Conservation Category: IV. Orange

Unknown status and high biological vulnerability and 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	-10
Action	-40 to 40	12

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)

Unknown, but suspected small. The U.S. Fish and Wildlife Service Beringian Seabird Colony Catalog estimated a population size of ~1,500 individuals (cited in Denlinger 2006), however, this estimate is now several decades old and is lacking data on inland colonies on lakes and rivers.

Range Size in Alaska (-10 to 10)

Reproductive Potential in Alaska

Age of First Reproduction (-5 to 5)

Breeds from Southeast to central Alaska, as well as along coastlines of southwestern, western, and northern Alaska (eBird 2023). Its year-round range is restricted to the Aleutian Islands, the Alaska Peninsula, Kodiak Island, and coastal areas from southcoastal to Southeast Alaska (Denlinger 2006; Weseloh et al. 2020). Year-round range is estimated to be 350,000 sq. km, based on map from ACCS (2017a).

Score: -8

Population Concentration in Alaska (-10 to 10)

Typically nest in colonies, sometimes mixed with other gull species (Arimitsu et al. 2007; Weseloh et al. 2020). The U.S. Fish and Wildlife Service Beringian Seabird Colony Catalog estimated 36 breeding colonies in Alaska (cited in Denlinger 2006). Though this estimate is now several decades old, it is likely that there are fewer than 250 colonies in the state.

Score: -6

Score: 4

Score: 1

Number of Young (-5 to 5)

2020).

Females typically lay a single clutch per year with 3 eggs per clutch (Weseloh et al. 2020). Renesting is possible if the first clutch is lost.

Little data available. Females are thought to begin breeding at 4 years old (Weseloh et al.

Score: 6

Ecological Specialization in Alaska

Dietary (-5 to 5)

Adaptable and opportunistic feeder and scavenger. Consumes a variety of items such as fish, offal, bird eggs, small mammals, berries, and marine invertebrates including mollucs and crustaceans (Denlinger 2006; Weseloh et al. 2020). Despite their dietary diversity at the population level, most individuals specialize on specific food items, with implications for their reproductive success (van Donk et al. 2017). We therefore rank this question as B- Moderately adaptable.

Score: 1

Habitat (-5 to 5)

According to Weseloh et al. (2020), the main criterion for nest sites is that they are inaccessible to terrestrial predators. Nests sites are situated near lakes or rivers, or by the ocean on a variety of substrates and in a variety of vegetation communities. Common nest site locations include sea cliffs, offshore islands, tidal flats, dwarf shrub tundra, boreal forests, and urban landscapes (Denlinger 2006; Gibson and Byrd 2007; Weseloh et al. 2020). Herring Gulls may travel large distances away from their nest site to forage (Weseloh et al. 2020). During the non-breeding season, Herring Gulls move away from inland sites and stay closer to coastlines or large, unfrozen bodies of freshwater (Weseloh et al. 2020).

Score: -5

Biological Total: -10

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). Open to subsistence harvest except during seasonal closures (AMBCC 2020).

Score: -10

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

Habitat associations and range are generally known, but require further study. For example, the breeding distribution of Herring Gulls that breed inland is not well-understood. Moreover, information on the distribution of breeding colonies is out-of-date and may have changed.

Score: 2

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

Not currently monitored. Estimates on population size and the number of breeding colonies are several decades old and need to be updated.

Score: 10

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

Studies outside of Alaska have found that diet quality and food availability affect several metrics including body condition, reproductive success, and survival (van Donk et al. 2017; Weseloh et al. 2020). In Alaska, egg harvest and bycatch from longline fisheries are two factors of concern (Denlinger 2006), but the effect of these activities on population size is not well-understood. Thousands of gull eggs are harvested each year, however, it is unknown what proportion of this harvest is comprised of Herring Gull eggs (Naves 2015). Differentiating between various species of large gulls is challenging, especially since species hybridize; as a result, species-specific information for harvest or bycatch estimates are not available (Naves 2018; Krieger et al. 2019).

Score: 10

Action Total: 12

Supplemental Information

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

Harvest: Substantial, regulations

Seasonal Occurrence: Year-round

Taxonomic Significance: Monotypic species

% Global Range in Alaska: <10%

% Global Population in Alaska: <25%

Peripheral: Yes

References

- Alaska Center for Conservation Science (ACCS). 2017a. Wildlife Data Portal. University of Alaska Anchorage. Available online: <u>http://aknhp.uaa.alaska.edu/apps/wildlife</u>.
- Alaska Migratory Bird Co-Management Council (AMBCC). 2020. Regulations for the 2020 Alaska Subsistence Spring/Summer Migratory Bird Harvest. Office of the Alaska Migratory Bird Co-Management Council, U.S. Fish & Wildlife Service, Anchorage, AK, USA.
- Arimitsu, M. L., J. F. Piatt, and M. D. Romano. 2007. Distribution of ground-nesting marine birds along shorelines in Glacier Bay, southeastern Alaska: An assessment related to potential disturbance by back-country users. Scientific Investigations Report 2007-5278, U.S. Geological Survey, Reston, VA, USA.
- Denlinger, L. M., comp. 2006. Alaska Seabird Information Series. Unpublished report, U.S Fish and Wildlife Service, Migratory Bird Management, Anchorage, AK, USA.
- eBird. 2023. eBird: An online database of bird distribution and abundance. eBird, Ithaca, NY, USA. Available online: <u>http://www.ebird.org</u>.
- Gibson, D. D., and G. V. Byrd. 2007. Birds of the Aleutian Islands, Alaska. Nuttall Ornithological Club, Cambridge, MA, USA.
- Krieger, J. R., A. M. Eich, and S. M. Fitzgerald. 2019. Seabird bycatch estimates for Alaska groundfish fisheries: 2018. NOAA Technical Memorandum NMFS-F/AKR-20, U.S. Department of Commerce, Washington, DC. DOI: 10.25923/hgft-we56

- Migratory Bird Treaty Act (MBTA). 1918. U.S. Code Title 16 §§ 703-712 Migratory Bird Treaty Act.
- Naves, L. C. 2015. Alaska subsistence bird harvest, 2004-2014 data book. Special Publication No. 2015-05, Alaska Department of Fish and Game, Division of Subsistence, Anchorage, AK, USA.
- Naves, L. C. 2018. Geographic and seasonal patterns of seabird subsistence harvest in Alaska. Polar Biology 41(6):1217–1236. DOI: 10.1007/s00300-018-2279-4
- van Donk, S., K. C. J. Camphuysen, J. Shamoun-Baranes, and J. van der Meer. 2017. The most common diet results in low reproduction in a generalist seabird. Ecology and Evolution 7(13):4620–4629.
- Weseloh, D. V., C. E. Hebert, M. L. Mallory, A. F. Poole, J. C. Ellis, P. Pyle, and M. A. Patten. 2020. Herring Gull (*Larus argentatus*), version 1.0. In Billerman, S. M., ed. Birds of the World. Cornell Lab of Ornithology, Ithaca, NY, USA. DOI:10.2173/bow.hergul.01

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