

GLAUCOUS GULL *Larus hyperboreus*

Conservation Status

ALASKA: Not At Risk N. AMERICAN: Not Currently At Risk GLOBAL: Least Concern

Breed	Eggs	Incubation	Fledge	Nest	Feeding Behavior	Diet
May-Aug	2-4	27-28 d	45-50 d	ground, vegetation mound	active predation, piracy, scavenging	fish, marine invertebrates, carrion, berries, eggs, birds

Life History and Distribution

The Glaucous Gull (*Larus hyperboreus*) is a large, pale gull that has a circumpolar distribution. It is the only large gull commonly found in the far north. This is one of the most predatory of gulls, capturing and eating adult birds, eggs and chicks, small mammals, and fish. Marine invertebrates, berries, garbage, and dead animal matter are also part of the diet and the Glaucous Gull is known to pirate food items from other birds.

This species is heavy-bodied with a long, powerful, yellow bill with a red spot, pink legs, and yellow eyes. Its head, neck, breast, belly, and tail are white. The edges and tips of the wings are also white; the back and upperwings are gray. In winter, it is brushed with brown streaking and spotting on the head and nape. The Glaucous Gull hybridizes with Glaucous-winged Gulls (*Larus glaucesens*) and Herring Gulls (*Larus argentatus*) in North America and the hybrids may display intermediate plumage characteristics.

Nesting occurs in a variety of habitats including; sea cliffs, barrier islands, ice edges, open tundra, freshwater lakes and ponds, and islets on river deltas. It often nests in sizeable groups in colonies of mixed species, but may also be found nesting as solitary pairs on the tundra.

In North America, the Glaucous Gull breeds along the west and north coasts of Alaska and throughout most of low and high arctic Canada. The center of abundance of this species in Alaska is the Yukon-Kuskokwim Delta and the east side of the Bering Strait.

It winters primarily in coastal waters and distribution is dependent on access to open water. The Alaskan breeding population commonly winters on the Aleutian and Pribilof islands and is found in decreasing numbers along the coast to Oregon and rarely as far south as California. In the Atlantic, the species winters from Labrador, south to Virginia and N. Carolina, and rarely to Florida. The majority winters in the Atlantic provinces of Canada. It also occurs regularly, in small numbers, in the Gulf of St. Lawrence and on the Great Lakes.

Breeding also occurs in Greenland, Iceland, northern Europe and along the islands and coast of Russia.

Four subspecies are recognized with three known to occur in North America. Subspeciation is based on slight differences in size and darkness of the mantle. The subspecies *Larus hyperboreus barrovianus* is found in Alaska and the Yukon Territory.



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Alaska Seasonal Distribution

AK Region	Sp	S	F	W
Southeastern	R	R	R	R
Southcoastal	R	R	R	R
Southwestern *	U	U	U	U
Central	R	R	R	-
Western *	C	C	C	+
Northern *	C	C	C	-

C= Common, U= Uncommon, R= Rare, += Casual or accidental, - = Not known to occur, * = Known or probable breeder, Sp= Mar-May, S= June and July, F= Aug-Nov, W= Dec-Feb. © Armstrong 1995.

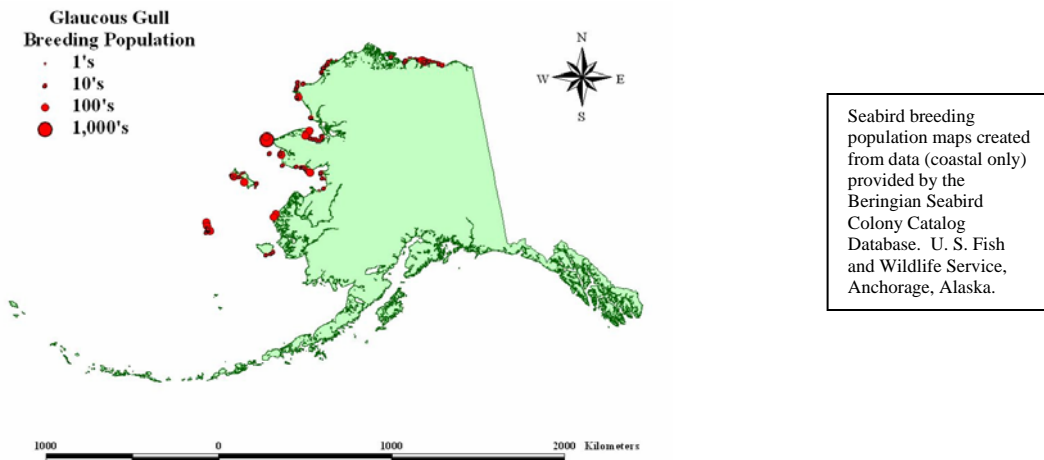
Population Estimates and Trends

Populations are difficult to census because many breed as separate pairs (rather than in colonies) on widely dispersed river flats. Therefore, population numbers are poorly known. An adjusted estimate for Alaska, to include Glaucous Gulls nesting inland, is approximately 100,000 individuals. A minimum estimate of breeding Glaucous Gulls in Canada is 69,000 individuals at 1,031+ colonies.

Trends for Glaucous Gulls are also poorly known. Few changes in population size or distribution have been reported in North America or globally. Breeding populations remain stable in Alaska and in northeastern Canada, but they have declined on Belcher Island off western Quebec, Canada.

Conservation Concerns and Actions

The Glaucous Gull is less thoroughly studied than most other gull species in North America, owing partly to its remote breeding locations.



High levels of chlorinated hydrocarbons (pesticides) have been recorded in Glaucous Gulls in recent decades, often at levels comparable to other top predators such as the polar bear (*Ursus maritimus*). The most extensive studies have occurred in polar regions outside North America. Lethal effects to seabirds can occur when high concentrations of PCBs (synthetic, chlorinated, organic compounds) stored in fat are released in the body, such as during starvation events. However, lethal and sublethal effects on Glaucous Gulls are unknown.

The attraction of Glaucous Gulls to fish waste discarded by fishing vessels can result in birds being entangled or drowned in nets. In Alaska, gulls (Glaucous Gulls, Glaucous-winged Gulls, Herring Gulls) are the second most frequently taken species group of birds as bycatch in the Bering Sea/Aleutian Islands demersal groundfish longline fisheries and the third most frequently taken species group in the Gulf of Alaska. Between 1993-2003, gulls comprised 20% of the total bycatch in the longline fisheries in the Bering Sea/Aleutian Islands (2,571 individuals per year) and 12% (106 individuals per year) of the total bycatch in the Gulf of Alaska. Small numbers of gulls are also taken in the Alaskan trawl fisheries as bycatch.

Access to waste from fishing activities and to human refuse could increase breeding numbers of Glaucous Gulls locally around communities, and could also increase overwinter survival of young gulls. This does not commonly occur among Glaucous Gull populations due to the remote nature of their breeding areas. An exception to this is the Prudhoe Bay area in Alaska, where garbage dumps and other human development are prevalent. This area supports greater numbers of both breeding and nonbreeding Glaucous Gulls than are found in more pristine areas of the region.

Other effects of human activity include hunting. In Alaska, Glaucous Gulls and their eggs are taken by Native subsistence hunters. Between 1995 and 2000, about 706 adult Glaucous Gulls and almost 17,732 eggs were taken annually, with the majority of eggs taken in the Bristol Bay area. An additional 16,992 gull eggs were harvested, but not identified to species. Glaucous Gull eggs may also be included in this number. Effects on the populations are not directly known, but current harvests are not thought to cause severe impacts.

Human or predator disturbance at nests may increase

predation on chicks or eggs by other Glaucous Gulls. Adults will attack predators and humans at nest areas by aerial dives and strikes with their feet. Chicks may scramble away from the nest, and try to hide, making them more susceptible to predation. Capturing adults on nests may result in nest abandonment.

Glaucous Gulls are known to prey on juvenile waterfowl and chicks of other seabirds. On the Yukon-Kuskokwim Delta in Alaska, this species took large numbers of goslings (*Chen canagica*, *Anser albifrons*, *Branta canadensis mimima*), but it is not clear whether gull predation was limiting the growth of geese populations. In Russia and Greenland, Glaucous Gulls were formerly culled to enhance reproduction of murre and eiders. It is not known if culling of gulls for management purposes necessarily lowers Glaucous Gull breeding populations over time. In addition, culling remains controversial.

Recommended Management Actions

- Determine Alaskan Glaucous Gull breeding population numbers and trends.
- Determine annual reproduction.
- Establish a regional monitoring program.
- Work with the Alaska Migratory Bird Co-Management Council (AMBCC) to monitor subsistence use of Glaucous Gull eggs.
- Continue to work with state and federal agencies and fisheries councils to measure and minimize the negative impacts of fisheries interactions.
- Measure contaminant levels in Glaucous Gull eggs.

Regional Contact

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References

Armstrong 1995; Bowman *et al.* 2004; Gilchrist 2001; IUCN Internet Website (2005); Kushlan *et al.* 2002; NOAA Internet Website (2005); U.S. Fish and Wildlife Service 2006, 2002; U.S. Fish and Wildlife Service Internet Website (2005).

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