SABINE'S GULL *Xema sabini*

Conservation Status

ALASKA: Low **N. AMERICAN: Low Concern** **GLOBAL: Least Concern**

Breed	Eggs	Incub	Fledge	Nest	Feeding Behavior	Diet
June-Aug	1-3	20-25 d	~ 20 d	ground, depression in vegetation	surface seizing, dipping	aquatic insects, zooplankton, crustaceans, fish

Life History and Distribution

Sir Edward Sabine, an explorer and astronomer, discovered a new, small gull species while on an arctic expedition in 1818. He sent a specimen to his brother Joseph, a naturalist, who named the gull Sabine's Gull (*Xema sabini*) in honor of his brother.

These eye-catching, graceful birds are not typical gulls. Behaviorally and physically, they are unique and the only gull in the genus *Xema.* In many respects, they act more like shorebirds or terns than gulls. Their flight is light and buoyant like that of a tern and the sounds they emit are also quite tern-like. At the nest, Sabine's Gulls react to mammalian predators with a variety of distraction displays similar to those used by shorebirds (e.g. choking, leading predators away from the nest); no other gull uses such displays. Additional, atypical features of these gulls are feeding of whole prey to females during courtship (rather than regurgitating it, as in other gulls) and development of flight in chicks before they are fully feathered, similar to the pattern of terns.

One of only two gull species with a yellow-tipped, black bill and notched tail, Sabine's Gulls are quite distinctive. Long, narrow, pointed wings with a conspicuous triangular pattern on the upper surface characterize the species even further. The black, white, and gray triangular pattern on the wing makes identification of Sabine's Gulls straightforward. During the breeding season, adults have charcoal-gray hoods that are ringed with a thin, black line at the base. After the breeding season, the head becomes white with dark smudges. The tail is white, legs and feet are dark, and the eyes are dark with a red orbital ring. Males and females look alike, but males average slightly larger. Juvenile birds have a similar tri-colored wing pattern, but the gray triangular area is brown and the tail is edged with a black band.

Widely dispersed nesting occurs in small colonies (up to 20± pairs) or as single pairs in arctic and subarctic areas. One to three eggs are laid in a depression on the moist ground (e.g. swampy, low-lying tundra, tidal marshes, low-lying sea coasts), usually near fresh water. Frequently, nests are placed near or within Arctic Tern (*Sterna paradisaea*) colonies.

Throughout the summer, Sabine's Gulls generally feed singly or in pairs, in fresh water or on land, and occasionally in brackish water. Aquatic insects are the primary diet. They also take eggs from the nests of other birds and steal food from Arctic Terns. When not breeding, these gulls are truly marine. They migrate to tropical and subtropical waters, where they feed over the open ocean in groups of hundreds, including mixed-species flocks. This species is also known to follow fishing vessels to feed on fish waste.

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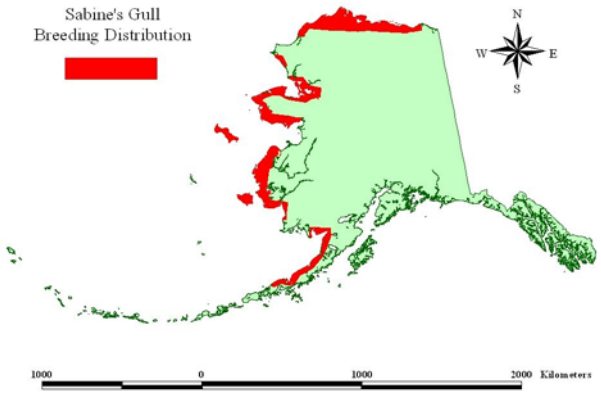
Breeding occurs in coastal areas within Alaska and east across arctic Canada to northern Hudson's Bay and Greenland. Nesting also happens on the islands of Spitsbergen (islands north of Norway) and northern Russia (Taimyr Peninsula) to Siberia.

In Alaska, breeding takes place along the northern coast of the Alaska Peninsula, on the Yukon-Kuskokwim Delta, Nunivak Island, and St. Lawrence Island. Based on availability of similar habitat nesting may also occur on much of the northwest coast to the vicinity of Point Hope. In northern Alaska, nesting occurs from the vicinity of Cape Sabine (northern portion of Cape Lisburne Peninsula) east to Demarcation Bay (Alaska-Canadian border).

Alaska Seasonal Distribution

AK Region	Sp	S	F	W
Southeastern	R	+	R	-
Southcoastal	U	R	U	-
Southwestern *	U	U	U	-
Central	-	+	-	-
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.



Seabird breeding distribution maps created from data *in* Birds of North America, Day *et al.* 2001.

Cool water upwellings of the Humboldt Current off Peru are thought to be the primary wintering zone for birds breeding in Alaska, central, eastern, and probably western Russia, and western Canada. The main wintering area for breeding birds from eastern Canada, Greenland, Spitsbergen, and possibly western Russia is considered to be in the upwellings zones of the Benguela Current off the southwestern coast of Africa. The boundary between these two wintering populations on the breeding grounds in North America is not definitively known, but occurs somewhere in the Canadian Arctic.

Population Estimates and Trends

The estimated population for Sabines's Gulls in Alaska is probably several tens of thousands of individuals. Aerial surveys conducted in 2005 in western Alaska (Yukon-Kuskokwim Delta coastal zone) indicated a population size of 25,061 Sabine's Gulls. This estimate was 40% above the long-term average for 1992-2005. North-Slope aerial surveys conducted June 2004 suggested a population index of 10,345 Sabine's Gulls. Data from this survey for 1992-2004 indicated a non-significant growth rate for this species in northern Alaska. In contrast, Sabine's Gull counts were erratic, though level in the long term, on another aerial survey also conducted along the north coast. The latter survey was flown earlier in June (10-19). It is likely that this difference between the two surveys relates to survey timing since the Sabine's Gull is a relatively late, long-distance migrant. Hence, the survey conducted later in June is probably better for tracking this species.

There are no mechanisms in place to monitor Sabine's Gulls in Canada. Hence, there is insufficient information to speculate about population trends. Approximately 200 pairs nest in Greenland, but an unknown number also nests in low densities scattered along the coastline. Very few Sabine's Gulls nest on Spitsbergen, and only in scattered pairs. In Russia, this species nests inland and the population is unknown.

Shuntov (1998) estimated the Pacific wintering population size at ≤100,000 individuals. Most one-year old subadults remain on the wintering grounds for their first (northern) summer and do not return to the breeding grounds.

Conservation Concerns and Actions

The propensity of Sabine's Gulls to follow fishing vessels on the wintering grounds has the potential for interactions with commercial fisheries. This interaction is poorly understood and needs further investigation. If the Sabine's diet is supplemented by waste discarded by fisheries, interacting could be positive. However, if feeding birds are caught in fishing gear, the result could be detrimental.

Hunting and egging of Sabine's Gulls continues today in Alaska. Subsistence harvest was estimated at approximately 58 adults and 3,305 eggs per year between the mid-1990s and 2000. Impacts on the population are not known.

Few data are available on disturbance at nest sites. However, in northeastern Greenland, productivity was strongly, negatively affected by human disturbance. Results were abandonment of nests or prevention from breeding.

Relationships between Sabine's Gulls and Arctic Terns on the nesting grounds are not well understood. Further research could lend insight into the nature of this association (e.g. protection by a more aggressive species, mutual defense, shared habitat requirements).

Recommended Management Actions

- Monitor Sabine's Gulls in Alaska.
- Complete a nesting inventory and measure productivity.
- Work with the Alaska Migratory Bird Co-Management Council (AMBCC) to monitor subsistence use.
- Evaluate disturbance at nesting sites.
- Investigate the nesting relationship between Sabine's Gulls and Arctic Terns.
- Determine the extent of overlap and interactions with commercial fisheries.

Regional Contact

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References

Armstrong 1995; Day *et al.* 2001; Environment Canada Website (2005); IUCN Internet Website; Kushlan *et al.* 2002; Larned *et al.* 2005; Platte and Stehn 2005; Shuntov 1998; U.S. Fish and Wildlife Service Internet Website(2005).

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