



Threatened and Endangered Species

Yellow-billed Loon

(Gavia adamsii)

The yellow-billed loon is the largest of the five loon species, and similar in appearance to the common loon (*Gavia immer*). Yellow-billed loons are most easily distinguished from common loons by their larger yellow or ivory bill. During the non-breeding season, yellow-billed loons lose their distinctive black and white plumage and molt into dull, light brown feathers.

Status

The yellow-billed loon was designated a candidate species throughout its range in March 2009. This species is considered a Bird of Conservation Concern in the U.S., is one of the State of Alaska's Comprehensive Wildlife Conservation Strategy species, and is also listed in the Red Book by the Russian Federation as a category three species (rare, sporadically distributed species). In addition to protection they receive under the ESA, any take of this species is prohibited under the Migratory Bird Treaty Act.

Range

In Alaska, the breeding range of yellow-billed loons includes the Arctic Coastal Plain (ACP), northwestern Alaska, and St. Lawrence Island. In Canada these birds nest to the east of the Mackenzie Delta and west of Hudson Bay. The Russian breeding range includes a relatively narrow strip of coastal tundra on the Chukotka Peninsula in the east and the western Taymyr Peninsula in the west (there is a break in distribution between these two areas). Their wintering range includes coastal waters of southern Alaska from the Aleutian Islands to Puget Sound; the Pacific coast of Asia from the Sea of Okhotsk south to the Yellow Sea; the Barents Sea and the coast of the Kola Peninsula; coastal waters of Norway; and possibly Great Britain.



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Yellow-billed loons have a low reproductive rate and very specific breeding habitat requirements.

Habitat and Habits

Yellow-billed loons nest exclusively in coastal and inland low-lying tundra, in association with permanent, fish-bearing lakes. Lakes that are able to support breeding loons have (or are adjacent to streams/rivers that have) abundant fish populations; offer depths greater than 2 meters (6 feet); are large (at least 13.4 hectares, or 30 acres); feature highly convoluted, vegetated, and low-lying shorelines; and provide both clear water and dependable water levels.

It is thought that yellow-billed loons occupy the same breeding territory throughout their reproductive lives. There is no reliable scientific information on lifespan and survivorship, but as large-bodied birds with low clutch size, yellow-billed loons are likely slow maturing, long-lived, and dependent upon high annual adult survival to maintain populations.

Nest sites are usually located on islands, hummocks, peninsulas, or along low shorelines, within 1 meter (about 3 feet) of water. Nests are constructed of mud or peat, and often lined with vegetation. One or two large, smooth, mottled brown eggs are laid in mid- to late June; hatching occurs after 27-28 days of incubation (handled by both sexes). Although the actual age at which young are capable of flight is unknown, it is probably similar to common loons (from 8-9, but possibly as many as 11, weeks). The young leave the nest soon after hatching, and the family may then move between natal and brood-rearing lakes. Both males and females participate in feeding and caring for young. Though yellow-billed loons might occasionally replace their eggs after nest predation, the short Arctic summer makes it unlikely that these birds can successfully raise a second brood.

Population Level

The global breeding population for yellow-billed loons is currently estimated to be 16,000-32,000 individuals based on the best available information. The Alaska population is estimated at 3,000-4,000 individuals. Limited available data suggests there is a maximum of approximately 20,000 yellow-billed loons in Canada and 8,000 in Russia.

Subsistence

There is no legal harvest of yellow-billed loons allowed in the U.S. However, in Alaska's North Slope Region only, a total of up to 20 yellow-billed loons per year may be kept and used for subsistence purposes if inadvertently caught in subsistence fishing nets.

Reasons for Current Status

The U.S. Fish and Wildlife Service (Service) considered the best available data about factors that could affect yellow-billed loon populations, including subsistence harvest, oil and gas development and other contaminants, climate change, fishing bycatch, and marine pollution in wintering habitat in Asia. Subsistence harvest surveys indicated a substantial level of harvest of yellow-billed loons relative to their population, although exact harvest numbers are uncertain. Yellow-billed loons are vulnerable to these and other factors due to a combination of low starting population size, low reproductive rate, and very specific breeding habitat requirements.

Conservation Measures

The Service is working in partnership with a variety of Native, State and Federal entities to protect the yellow-billed loon in northern and western Alaska and improve understanding of the species.

Partnership strategies include:

1. protecting yellow-billed loons and their breeding habitats in Alaska from potential impacts of land uses and management activities, including oil and gas development.
2. inventorying and monitoring breeding populations in Alaska;

3. reducing the impact of indirect subsistence activities (including fishing and hunting) on yellow-billed loons in Alaska.
4. conducting biological research on yellow-billed loons, including how populations respond to management/conservation actions.

The Service continues to work with partners to implement the above strategies. Specifically:

- working closely with the Bureau of Land Management to monitor and maintain protection of loons on the National Petroleum Reserve-Alaska.
- working closely with the Bureau of Ocean Energy Management and Bureau of Safety and Environmental Enforcement to minimize impacts on yellow-billed loons from oil and gas activities in the Arctic Outer Continental Shelf region.
- continuing to inventory yellow-billed loons through waterfowl surveys on the ACP and investigate the potential for initiating other yellow-billed loon-specific surveys (e.g., in Arctic waters); the National Park Service will continue loon-specific surveys currently in operation on the Seward Peninsula.
- working closely with the Alaska Migratory Bird Co-management Council (AMBCC), Alaska Native corporations, local communities in the Bering Strait region, North Slope Borough, and the State of Alaska to acquire reliable, verifiable information on subsistence harvest and fishing bycatch, and to substantially increase education and law enforcement efforts to reduce bycatch.
- expanding efforts to improve the understanding of loon harvest in the Bering Strait sub-region, specifically on St. Lawrence Island. Efforts include: 1) community meetings

to relay conservation concerns, present new research findings; and examine loon study skins to prompt discussion in preparation for harvest surveys; 2) development of a loon identification guide to investigate loon misidentification during harvest surveys and interviews; 3) census level harvest surveys; 4) collection of loon-specific data using follow-up field notes for reported loon harvest; and 5) improvement of harvest surveys in cooperation with community members.

- working with partners to initiate a project to better understand bycatch in gillnets and develop mitigation methods.
- supporting the ongoing research by the U.S. Geological Survey and others on yellow-billed loons in Alaska.

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