

**THICK-BILLED MURRE** *Uria lomvia*

**Conservation Status**

**ALASKA: Not at Risk**

**N. AMERICAN: Moderate Concern**

**GLOBAL: Least Concern**

Breed	Eggs	Incubation	Fledge	Nest	Feeding Behavior	Diet
June-Aug	1	30-35 d	16-30 d	cliff ledge, bare rock	surface dive	fish, marine invertebrates

**Life History and Distribution**

Thick-billed murre (*Uria lomvia*) nest on narrow ledges on precipitous cliff faces. Breeding colonies are extremely dense and can number up to a million birds. Birds nest shoulder to shoulder, laying one egg on bare rock, with densities reaching 10–30 eggs per square yard. Eggs are round at one end and pointed at the other. The unique shape helps them to roll around in a circle if they are bumped, instead of falling off the cliff. Egg color and mottling vary greatly from green to pinkish and may assist the parents in recognizing their own egg. One parent incubates and guards the egg while the other goes to sea to feed. Foraging trips may be up to 100 miles from the colony and can take up to two days.

Murres are tough and hearty. Only three weeks after hatching, flightless chicks jump off high cliff ledges and plunge into frigid ocean water below. The first day after leaving the nest they begin an incredible migration southward, remaining with the male parent who feeds them for another month. First, they swim up to 600 miles, then once their flight feathers have developed, they fly further south to their wintering grounds

The breeding range is circumpolar, including arctic and subarctic regions in the Atlantic, Arctic, and Pacific Oceans. In North America, they nest in Atlantic and arctic Canada, Alaska, and a few pairs in British Columbia. In Alaska, they breed from Cape Lisburne in the northwest, along the coast of western Alaska (Kotzebue Sound, Diomede, Nunivak, St. Lawrence, St. Mathew, and the Pribilof islands) to the Alaska Peninsula, and throughout the Aleutian Islands. They also breed along the southern coast of Alaska off Kodiak, the Barren, and Middleton islands, and at Cape St. Elias and St. Lazaria Island in Southeast Alaska.

**Alaska Seasonal Distribution**

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

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.**



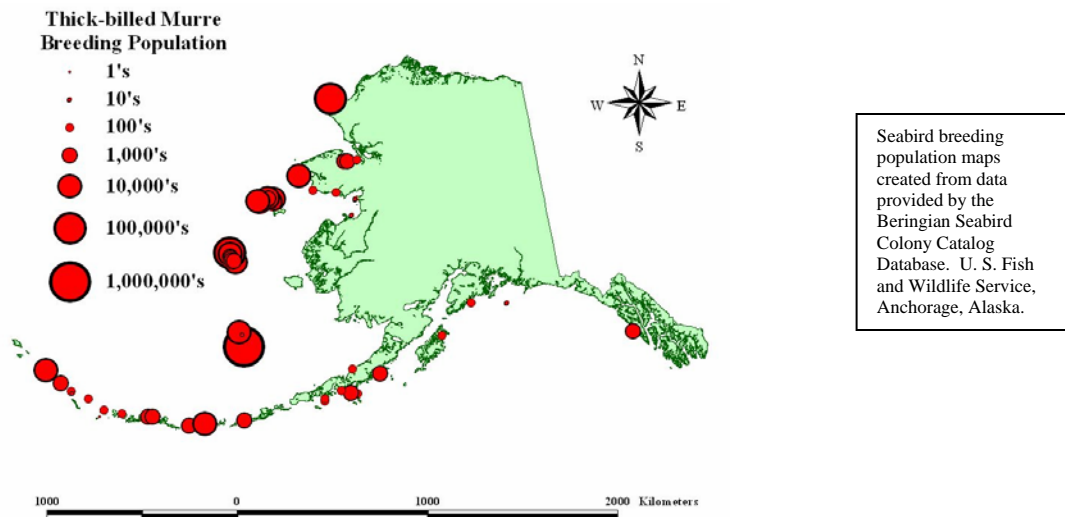
USFWS Chris Dau

In most of Alaska, Thick-billed Murres breed in mixed colonies with the similar-looking Common Murre (*Uria aalge*). The latter predominates in the Gulf of Alaska and on the Alaska Peninsula and Bering Sea coast. Thick-billed Murres are more common in the western Aleutian Islands and the Chukchi Sea. In breeding plumage, Thick-billed Murres differ from Common Murres in having blacker, or less brownish, upperparts (except face and sides of neck), a shorter, thicker bill with a white line on the cutting edge, a pattern of white on the breast which tapers into a point on the throat, and generally cleaner and whiter flanks. Hybridization between the two species may be regular at some colonies in Alaska.

Alaskan breeding birds winter wherever there is open water; in the Bering Sea, Aleutian Islands, Gulf of Alaska, and northern British Columbia. Thick-billed Murres from the eastern Canadian Arctic winter mainly off eastern Newfoundland and Labrador. Some also winter off western Greenland and as far south as the northeastern United States.

Thick-billed Murres also breed in eastern Greenland, Iceland, Norway, on the Siberian coast, the Chukotski Peninsula, Kamchatka, the Sea of Okhotsk, and south to Sakhalin and the southern Kuril Islands. These birds winter in the Barents and Norwegian Seas, waters off Iceland and Denmark Strait, southwestern Greenland, the Kuril Islands, Sea of Okhotsk, and south to the Sea of Japan.

Four subspecies are recognized with only two occurring in North America (one in the Pacific and one in



the Atlantic). The Pacific subspecies is *Uria lomvia arra*.

### Population Estimates and Trends

The total world population is estimated at 15-20 million individuals. In Alaska, where the breeding range overlaps extensively with that of Common Murres, it is difficult to identify and assign every individual to a species. As a result, population estimates in Alaska include a percentage of unidentified murres at all colonies censused. The Alaskan Thick-billed Murre population is approximately 2.2 million birds at 174 colonies.

At sites where counts of murres are made from the water, it is especially difficult to differentiate the species. Thick-billed and Common Murres are often combined at these sites for population trend analysis. For sites where murres are not combined, significant negative trends were found for Thick-billed Murres on Hall Island in the Bering Sea (-2.4% per annum 1983-1997) and on St. Paul Island in the Pribilof Islands (-1.7% per annum 1976-2002). On Buldir Island in the Aleutian Islands, Thick-billed Murres showed a significant positive trend of +7.7% per annum between 1974-2003.

### Conservation Concerns and Actions

Cliff life presents many hazards to murres. Storms, cold weather, and disturbance by humans can cause both chicks and eggs to be blown or knocked off their narrow ledges, killed by exposure, or left undefended to be snatched by predators. Murres at breeding colonies are especially sensitive to helicopters, gunshots, and disturbance from above. Few predators prey on adult Thick-billed Murres, but some introduced species such as the arctic (*Alopex lagopus*) and red (*Vulpes vulpes*) fox are known to do so.

Effects of human activity include hunting. In Alaska, adult murres and eggs are taken by Native subsistence hunters. Between the early 1990s and 2000, about 9,195 adult murres and almost 37,000 murre eggs were taken, with the majority of adult murres taken on St. Lawrence Island. The murres were not identified to species in subsistence surveys and comprised both Common and Thick-billed Murres in census figures. Effects on the populations are not directly known, but current harvests are not thought to cause severe impacts. Eggs are also harvested by two Native communities in the eastern

Canadian Arctic, where population effects are also thought to be unlikely. Winter subsistence hunts in Newfoundland and Labrador currently take about 200,000 Thick-billed Murres per year. Heavy hunting also occurred at breeding colonies in western Greenland where hunting was probably the major cause of population declines in this century.

Thick-billed Murres are vulnerable to the effects of oil pollution because they have a low reproductive rate, large populations, and dense concentrations in coastal habitats. The *Exxon Valdez* oil spill in 1989 in Prince William Sound, Alaska, is the largest murre kill yet, with an estimated mortality of 185,000 murres (most were Common Murres).

Drowning in fishing nets is also a cause of mortality and has been reported for much of the species range.

### Recommended Management Actions

- Continue the current level or increase monitoring of Thick-billed Murre populations in Alaska.
- Initiate additional introduced predator removal programs, continue the rat introduction prevention program, and begin a rat response program.
- Work with state and federal agencies and fisheries councils to better understand and minimize the negative impacts of fisheries interactions.
- Support efforts to minimize the incidence of fuel spills near breeding and wintering areas and measure contaminants in Thick-billed Murre eggs.
- Work with the Alaska Migratory Bird Co-Management Council (AMBCC) to monitor subsistence use of Thick-billed Murres.
- Reduce human disturbance at colonies.

### Regional Contact

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### References

Armstrong 1995; Dragoo *et al.* In Press; Gaston and Hipfner 2000; IUCN Internet Website (2005); Kushlan *et al.* 2002; NOAA Internet Website (2005); Stephensen and Irons 2003; U.S. Fish and Wildlife Service 2006, 2002; U.S. Fish and Wildlife Service Internet Website (2005).

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