

WHISKERED AUKLET *Aethia pygmaea*

Conservation Status

ALASKA: Moderate

N. AMERICAN: Moderate Concern

GLOBAL: Least Concern

| Breed | Eggs | Incubation | Fledge | Nest | Feeding Behavior | Diet |
|---------|------|------------|---------|---------|------------------|-------------|
| May-Aug | 1 | 35-36 d | 35-46 d | crevice | surface dive | zooplankton |

Life History and Distribution

Whiskered Auklets (*Aethia pygmaea*) are small alcids that are endemic to a group of volcanic islands from the Aleutian Islands in Alaska to the Commander and Kuril Islands of Russia. Alcids are a group of seabirds that includes murrelets, guillemots, puffins, and Dovekies (*Alle alle*). They are built for marine life. Characteristics which they share include: a stout bill, heavy, streamlined body, short tail and wings, feet set far back on the body, and strong, powerful chest muscles that move them swiftly through both the air and water. Wing-propelled, underwater “flight” enables them to swim to great depths in search of food. Whiskered Auklets feed in nearshore marine waters, mostly associated with areas of mixed water in “passes” between islands. These areas are formed by the convergence and upwelling of currents, and concentrate zooplankton, the auklet’s primary food.

This enigmatic seabird is exotically ornamented with a long black forehead crest, three white facial plumes, and a scarlet bill with a white tip. Behavior at the breeding colony is secretive and strictly nocturnal.

Unlike the more abundant Least (*Aethia pusilla*) and Crested Auklets (*Aethia cristatella*), Whiskered Auklets generally breed at low densities over a wider range of habitat types. The female lays one egg in a small crevice on a cliff face, talus slope, grassy slope with rocky outcrops, or on a cobble-boulder beach. It is thought that this dispersed breeding may have evolved in relation to competition with other alcids for nest sites.

In Alaska, this species is a locally common breeder throughout the Aleutian Islands, primarily west of Unimak Island. Particular areas of concentrations are the Krenitzen Island group, Islands of Four Mountains, Atka Pass to east Sitkin Sound, and Buldir Island.

Alaska Seasonal Distribution

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

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.



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In winter, they are probably a year-round resident near breeding areas. Generally, birds remain in the nearshore waters of the Aleutian, Commander and Kuril Islands, but some observations have been made as far south as Honshu and Shikoku, Japan.

Population Estimates and Trends

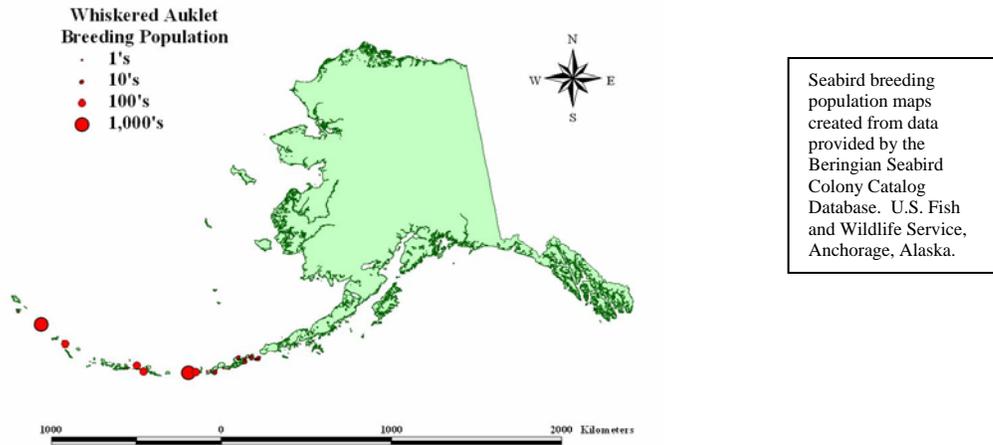
Recent estimates indicate there are about 116,000 Whiskered Auklets throughout the Aleutian Islands. These estimates are based on the largest counts of birds observed at sea during the breeding season, when many individuals were possibly attending nest sites, and should be considered as minimum estimates. Whiskered Auklets are increasing in the Aleutian Islands.

Estimates from the 1990s for the Commander Islands are about 5,000 individuals. No estimates are available for the Kuril Islands.

Conservation Concerns and Actions

Whiskered Auklets are of conservation concern because of their limited range and introduction of mammalian predators such as arctic foxes (*Alopex lagopus*) and Norway rats (*Rattus norvegicus*) to many of their breeding islands. In addition, Whiskered Auklets may be vulnerable to oil spills, entanglement in fishing nets, fatal attraction to ships' lights, and physical and human caused factors that disrupt their food base.

When Whiskered Auklets breed in dense mixed-species colonies, they are subject to disturbance by other auklet species and also by Horned Puffins (*Fratercula corniculata*). Killing of Whiskered Auklet chicks by other auklet species has been observed at some study sites. On



the other hand, low density breeding exposes these small auks to predation by gulls (*Larus spp.*), a threat that the diurnal Least and Crested auklets overcome by nesting in dense colonies. At low densities, Whiskered Auklets appear to avoid the predation risk by their almost exclusively nocturnal trips between the sea and their breeding sites.

Naturally occurring tundra voles (*Microtus oeconomus*) and red-backed voles (*Clethrionomys rutilus*), and introduced Norway rats, arctic foxes and red foxes (*Vulpes vulpes*) have all been recorded depredating auklets on islands in the Bering Sea. On Iona Island, in the Okhotsk Sea, there are no mammalian or avian predators and Whiskered Auklets are reported to have a diurnal pattern of activity. Further research is needed to establish whether nocturnality is a trait that responds to predation.

Seabird species that nest in rock crevices were expected to be less susceptible to fox predation than those that nest on the ground or in earthen burrows. However, that was not the case with Whiskered Auklets due to some unique characteristics. Many young and some adults return to breeding colonies after the breeding season to sleep on boulders on the shore making them particularly vulnerable to foxes patrolling beaches at night. They also have year-round residency near breeding areas rather than dispersing to the open seas like other *Aethia* species. This makes them available to foxes year-round. Proximity to year-round foraging areas may be the reason they remain close to the breeding areas.

The Aleutian Islands have no native terrestrial mammals west of Umnak Island. The introduction of arctic foxes had a dramatic, controlling effect on the distribution and abundance of Whiskered Auklets. Historical evidence suggests that this species was abundant prior to fox introduction, experienced large declines at the peak of fur farming, and is now recovering to former levels after an active fox removal program by the U.S. Fish and Wildlife Service. One impediment to further population increases and range expansion could be predation by Norway Rats which have been accidentally introduced to at least 16 islands.

Nocturnal fishing activities near breeding colonies pose a potentially serious threat to Whiskered Auklets. Birds come and go from breeding colonies at night and can

be attracted to lighted vessels, resulting in collisions with ships and entanglement in nets. Over 1,000 birds were killed when they flew into lights aboard a fishing vessel in the eastern Aleutian Islands.

Oil spills could also cause significant damage since Whiskered Auklets seem to occur in large flocks at relatively few places.

Recommended Management Actions

- Restore Whiskered Auklet populations and distribution to pre-fox, pre-rat introduction conditions and maintain an Alaska-wide population of at least year 2003 levels.
- Survey populations at index locations and maintain a monitoring program in Alaska.
- Complete a nesting inventory.
- Continue fox removal and rat prevention programs.
- Support efforts to minimize the incidence of fuel spills near breeding and wintering areas and measure contaminants in Whiskered Auklet eggs.
- Work with state and federal agencies and fisheries councils to minimize the negative impacts.
 - Review plans for emerging fisheries, to identify potential problems and solutions.
 - Educate ship crews about light pollution and care and release of birds that come aboard.

Regional Contact

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References

Armstrong 1995; Byrd and Williams 1993b; Dragoo *et al.* In Press; Hunter *et al.* 2002; IUCN Internet Website (2005); Kushlan *et al.* 2002; North 1997; U.S. Fish and Wildlife Service 2006, 2002; Williams *et al.* 2003.

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