Sea Duck Information Series

Steller's Eider *(Polysticta stelleri)*

French: Eider de Steller

Male Steller's Eider

Description

Steller's eiders are the smallest of the four eider species, averaging 43-47 cm (17-18.5 in.) with average body mass of about 850g (female) or 880g (male) (about 2 lbs.). Adults of both sexes have a blue patch with a white border on the upper wing, similar to a mallard.

In winter, spring, and early summer adult males are in breeding plumage with a black back, white shoulders, chestnut breast and belly, a white head with a greenish tuft, and small black eye patches. During the late summer and fall, males have mottled dark brown body plumage but retain the white wing bar. Females and juveniles are mottled dark brown year-round.

Steller's eiders are able to walk well on land and often stand on rocks or shore to preen or rest. In flight, their wing-beat is rapid and wings make a whistling sound.

Range

Three breeding populations of Steller's eiders are recognized worldwide, two in Arctic Russia (Atlantic and Pacific) and one in Alaska. The species' current breeding range in Alaska is primarily confined to the Arctic Coastal Plain between Wainwright and Prudhoe Bay, with a notable concentration near Barrow.

Historically, the Alaska-breeding population was locally common in portions of the Yukon-Kuskokwim Delta but are now extremely scarce with only a few nests found in recent years. Elsewhere in Alaska, there are breeding records from St. Lawrence Island and the Seward Peninsula, and possibly the Alaska Peninsula and Aleutian Islands, but none in recent decades.

After nesting, both the Alaska-breeding population and the (far more numerous) population breeding in eastern Russia migrate to near-shore waters of southwest Alaska, congregating in protected bays and lagoons while they undergo an autumn flightless molt. Izembek and Nelson lagoons are among the most important molting areas, with northern Kuskokwim Bay also an important site for Alaska-breeding birds.

Although some Steller's eiders remain in molting areas throughout the winter, others disperse to the eastern Aleutian Islands, to the south side of the Alaska Peninsula, the Kodiak Archipelago, and southern Cook Inlet. During spring migration, they concentrate in Kuskokwim and Bristol bays to await the retreat of sea ice on their migratory routes.

Habitat and Habits

Steller's eiders are diving ducks that spend most of the year in shallow, near-shore marine waters. Molting and wintering flocks congregate in protected lagoons and bays, as well as along rocky headlands and islets. They feed by diving and dabbling for molluscs and crustaceans in shallow water. During the breeding season they feed on aquatic insects and plants in freshwater ponds and streams.

In summer, they nest in tundra adjacent to small ponds or within drained lake basins. Females build a nest lined with grass, moss, and downy feathers on ground in open tundra, or among shrub willow and birch, near water. Eggs are laid at a rate of one per day, with an average clutch size of 6 eggs, and incubation lasts 24 days. Females may renest if the nest is destroyed early in the nesting period.

Population Size and Status

Population sizes are only imprecisely known. The Alaska-breeding population is thought to include hundreds or low thousands on the Arctic Coastal Plain, and possibly tens or hundreds on the Yukon-Kuskokwim Delta. Wintering Steller's eiders in southwest Alaska are thought to number 100,000-150,000, the vast majority of which belong to the Russian Pacific population.

The Alaska-breeding population is listed as threatened (Federal Register, June 11, 1997) under the Endangered Species Act due to apparent long term decline in numbers and a restriction in breeding range. Causes of the decline are unknown.

Management and Conservation

Neither Russia-breeding population is classified as endangered or threatened; only Steller's eiders that nest in Alaska are considered threatened.

Several potential threats have been identified. Lead poisoning, caused by eiders ingesting spent lead shot, may have affected Steller's eiders on the Yukon-Kuskokwim Delta and North Slope.

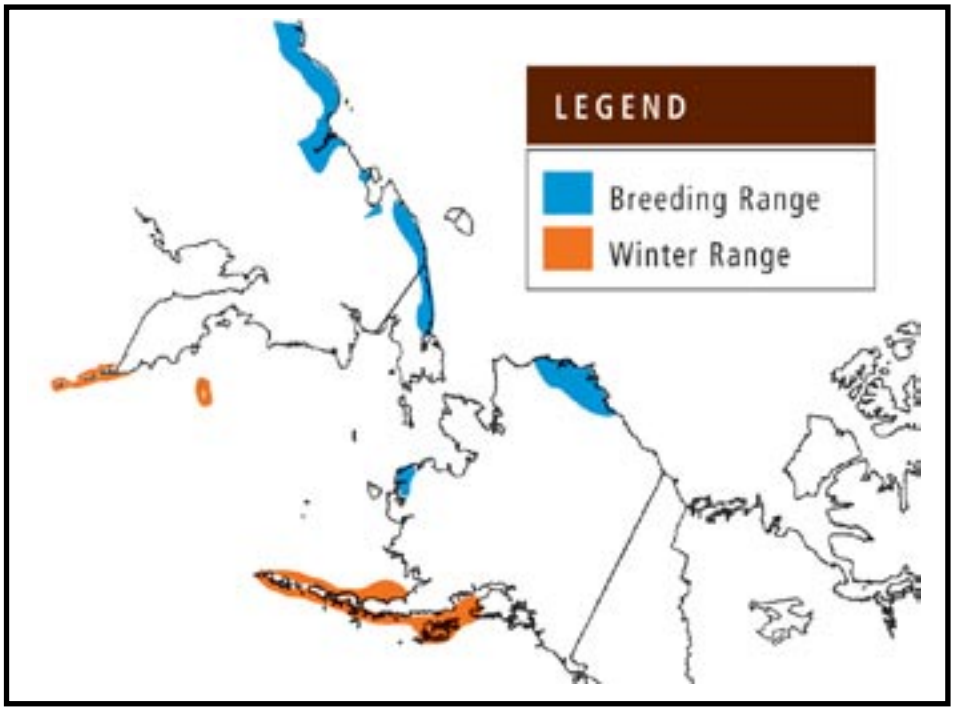
Predation by ravens, large gulls, and foxes on the breeding grounds may be increasing in areas where

populations of these predators are enhanced by food and shelter provided by human activities and garbage dumps. Shipping and fishing poses the risk of oil spills and disturbance of feeding flocks in marine waters.

Hunting of eiders is regulated under the Migratory Bird Treaty Act. Sport hunting of Steller's eiders in Alaska has been closed since 1991. Egging and subsistence harvest is apparently minimal; reported subsistence harvest in Alaska (an unknown mix of Russia and Alaska birds) has averaged 264 Steller's eiders in recent years. In Russia, hunting of Steller's eiders has been closed since 1981, but subsistence harvest occurs in Siberia at an unknown level.

Eiders are present on breeding grounds from mid-May through mid-September, but activities any time of year may affect them through habitat modification. Permits are required for certain types of activities that occur near nest sites. Guidelines and recommendations for minimizing adverse effects of projects are available from the USFWS offices in Anchorage and Fairbanks, Alaska.

Areas designated as Critical Habitat are considered essential for the conservation of threatened or endangered species. Currently there are five units designated for Steller's eiders: coastal tundra on the Yukon-Kuskokwim delta that encompasses historical breeding areas, and four units of nearshore marine waters (Kuskokwim Shoals, Seal Islands, Nelson Lagoon, Izembek Lagoon) used during the autumn molt or in winter.



Distribution of Steller's Eider in the Pacific

The marine untis were selected because they are used by thousands of Steller's eiders and/or confirmed use by the Alaska-breeding population.

References and Resources

Alaska.fws.gov/es/te.cfm - web site for the U.S. Fish and Wildlife Service Endangered Species office in Alaska

Dau, C. P., P. L. Flint, and M. R. Petersen. 2000. Distribution of recoveries of Steller's eiders banded on the lower Alaska Peninsula, Alaska. Journal of Field Ornithology 71:541-548.

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Kertell, K. 1991. Disappearance of the Steller's eider from the Yukon-Kuskokwim Delta, Alaska. Arctic 44(3):177-87.

Petersen, M. 1981. Populations, feeding ecology and molt of Steller's eiders. Condor 83:256-262.

Seaduckjv.org - web site for the Sea Duck Joint Venture

The Sea Duck Joint Venture is a conservation partnership under the North American Waterfowl Management Plan

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To learn more about the Sea Duck Joint Venture (SDJV), visit ***seaduckjv.org*** or contact:

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