

Key Site 15: Yukon-Kuskokwim Delta, Alaska

Location: 61°8'3"N, 165°3'48"W

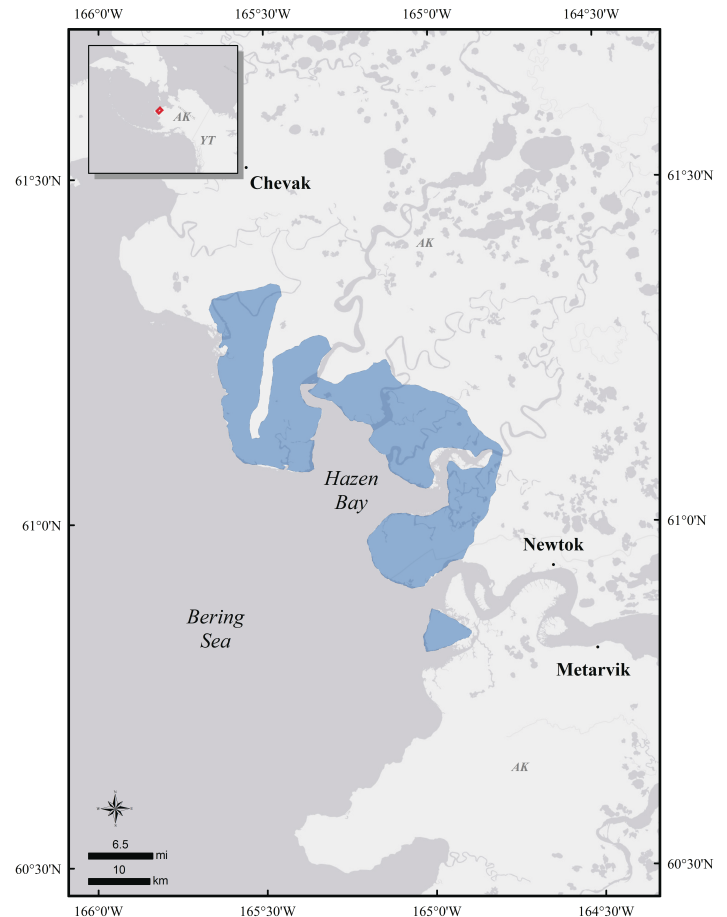
Size: 861 km²

Description: The Yukon-Kuskokwim Delta Key Habitat Site lies within the Yukon Delta National Wildlife Refuge and includes the near-coastal areas in the vicinity of Hazen Bay, where high densities of waterfowl nest. Both the Yukon and Kuskokwim rivers traverse the refuge, and over time these rivers have created one of the largest river deltas in the world. The coastal area of the Yukon-Kuskokwim Delta is generally a flat plain containing innumerable lakes and ponds, as well as tidal rivers and sloughs with extensive mud and sandflats (Appendix 1). Tide heights are up to about 2 m, and storm-driven high tides during spring and fall sometimes inundate large areas with salt water (Terenzi et al. 2014). Upland areas include sedge-graminoid meadows, palsas, and limited upland tundra (Tande and Jennings 1986). The communities of Chevak, Newtok, and Metarvik are located near this key site, and subsistence harvest activities of community members (e.g., fish camps, waterfowl hunting) do occur within the area.

Precision and Correction of Abundance Estimates Presented: Abundance estimates are based on ground-based nest surveys and aerial surveys of waterfowl during early spring (Fischer et al. 2017, Swaim 2017). Estimates have been adjusted for incomplete detection of nests and/or birds (Fischer et al. 2018).

Biological Value: This site is an important breeding area for several species of waterfowl, including Spectacled Eider (*Somateria fischeri*) and Pacific Common Eider (*S. mollissima v-nigra*). Spectacled Eiders and Common Eiders are present in this area from mid-May through August. The Yukon-Kuskokwim Delta is one of two primary breeding areas for Spectacled Eiders in Alaska, with about 15,000 birds present during the breeding season (Fischer et al. 2017); their numbers remain well below historic levels but seem to have increased since the mid-1980s (Dunham et al. 2021).

Pacific Common Eiders breed in coastal areas, with about 8000 birds present during the breeding season (Fischer et al. 2017). Several thousand Long-tailed Ducks (*Clangula hyemalis*) also occur and likely nest within the coastal area (Swaim 2017).



Sensitivities: Spectacled Eiders are listed as a threatened species, and this area is designated critical habitat for the species under the Endangered Species Act (USFWS 1993, 2001). Hunting of Spectacled Eiders has been prohibited since 1991, but some harvest does occur.

This low-lying habitat is particularly sensitive to increases in sea level rise due to climate change. Increased severity of storm surges has already been documented (Terenzi et al. 2014); the resulting changes in salinity of coastal ponds could impact many species that rear young in these ponds and require fresh water.

Ingestion of lead shot deposited in wetlands has been documented to cause mortality and sub-lethal effects in Spectacled Eiders (Grand et al. 1998, USFWS 2020). Lead shot has been banned for waterfowl hunting since 1991, and the State of Alaska prohibited use of lead shot for hunting of upland game birds and small game on the Yukon-Kuskokwim Delta. Still, illegal use of lead shot for hunting waterfowl and upland game birds (e.g.,

ptarmigan) near wetlands has contributed to continued deposition and exposure of birds to lead shot. Education efforts are underway to help ensure use of steel shot for hunting in this area.

Potential Conflicts: Offshore oil and gas development is currently (as of 2022) not a significant threat, although leasing plans are subject to change based on politics. Because most of this area falls within the boundaries of the Yukon Delta National Wildlife Refuge, activities that would adversely affect waterfowl and their habitats are largely regulated. Subsistence take occurs in the area, mainly in the form of egg collection, but is focused largely on geese and gulls and is considered an insignificant threat to Spectacled or Common Eiders. Predation of waterfowl eggs and young by foxes, gulls, and jaegers can be significant (Bowman et al. 2004).

Status: The coastal area of the Yukon-Kuskokwim Delta is within the Central Yukon-Kuskokwim Important Bird Area (National Audubon Society 2018) because of its importance to waterfowl and shorebirds. The entire refuge is also designated as a Marine Protected Area (NOAA 2018). Intertidal habitats are managed by the State of Alaska, while the surrounding wetlands and uplands are managed by the U.S. Fish and Wildlife Service as part of the Yukon Delta National Wildlife Refuge. Several small terrestrial sections within this area have been conveyed or remain “selected” under the Alaska Native Claims Settlement Act, but there has been little or no development of these lands. The primary Alaska Native Regional Corporation in the area is the Calista Corporation.

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