

KASEGALUK LAGOON

Description of Area

This 200-kilometer-long lagoon on the Chukchi Sea coast is a gathering place for a diverse set of wildlife. The lagoon is about 6 kilometers across at its widest point. The spits and barrier islands that enclose these shallow (less than 4 meters), brackish waters are nesting, denning, and haulout areas for many species. Two communities are associated with the lagoon: Point Lay (population ~250) at the southern end, and Wainwright (population ~550) just past the far north end.

Part of the regularly occurring landfast ice-pack, the shallow water here is frozen in winter for several months (Map 5). Gravel and muddy gravel make up the bottom (Map 6). Sea surface temperatures average 2–4° C during ice-free months (Map 7).

Outstanding Biological Features
Primary productivity is very high compared to nearby waters (Map 11), although limited benthic sampling seems to indicate lower values than waters outside the lagoon (Map 12).

Kasegaluk Lagoon is essential fish habitat for saffron cod (Map 15). At least three anadramous rivers flow into the lagoon, which are used by pink and chum salmon (Maps 17–18).

These waters are summer marine feeding or migration stopover sites for a long list of bird species. Yellow-billed and Red-throated Loons; Spectacled, Steller's, King, and Common eiders; and Long-tailed Ducks all breed in medium to high densities near the lagoon (Maps 19–25). Common Eiders nest in colonies of up to 500 birds on the spits and barrier islands (Map 24). This is a particularly important area for King Eiders, which concentrate both in and outside of the lagoon. Nearly all of the Western North



American breeding population of these birds stops here and in Ledyard and Peard bays during spring and fall migrations (Map 23). Because of the diversity and abundance of birds here, Kasegaluk Lagoon is a globally significant Important Bird Area (Map 31).

This is U.S. Fish and Wildlife Service no disturbance zone critical habitat for polar bears, which den and feed along the barrier islands, coast, and landfast ice (Map 32).

Arctic foxes captured at Teshekpuk Lake traveled to Kasegaluk Lagoon and beyond in winter months (Map 33). Pacific walrus use the barrier islands as a haulout, particularly at Wainwright, Point Lay, and Icy Cape; their use of this area has increased in recent years as the minimum sea ice extent continues to move north due to climate change (Map 34). Ribbon and bearded seals can be found in the lagoon (Maps 35, 38), but only spotted and ringed seals occur in large numbers. This is a major spotted seal haulout along nearly the entire length of the lagoon (Map 36). Ringed seals are found in high concentrations in the winter and spring, from approximately October to July (Map 37). These shallow brackish waters are an important concentrated calving and molting area for beluga whales (Map 40).

Current Resource Use

Subsistence uses include hunting of beluga whales, seals, polar bears, and seabirds. Fishing is also practiced in the lagoon system.

Conservation Status

- Kasegaluk Lagoon is a globally significant Important Bird Area designated by the National Audubon Society and BirdLife International (Map 31).
- Designated Special Area within the National Petroleum Reserve–Alaska which is managed by the U.S. Bureau of Land Management.
- Designated essential fish habitat for saffron cod by the U.S. National Marine Fisheries Service (Map 16).
- Designated no disturbance zone critical denning and feeding habitat for polar bears by the U.S. Fish and Wildlife Service (Map 32).
- Waters within 40 kilometers of the Chukchi coast and Point Barrow are not currently open to oil and gas leasing by the U.S. Bureau of Ocean Energy Management or the State of Alaska (Map 42).
- Currently closed to commercial fishing by the U.S. North Pacific Fishery Management Council.

Current and Future Threats

- Potential for development of a port for bringing offshore oil to a future pipeline across the National Petroleum Reserve.
- High air temperature increases (up to 3.0° C) projected by the end of the century (Map 44).