Upstream Migration

Ecology

- Adults return to the mouth of the Yukon River from mid-to-late May through early July. The timing of entry depends on environmental conditions including sea surface and air temperatures as well as sea ice cover (Mundy and Evenson 2011).
- Peak migration timing of Chinook salmon entering the Canadian section of the drainage usually occurs mid-to-late July.
- Migration through Alaska occurs during maximum summer daylight, raising concerns of high water temperatures.
- Most adults return to their natal rivers. These may be as far upstream as the headwaters of the Stewart, Pelly and Teslin Rivers (~3000 km upstream of the Yukon estuary).
- The first adults reach the headwaters of the principal tributaries around August 1.

Potential Limiting Factors

- Short term climatic/hydrologic variation resulting in low water/warm water conditions in the Yukon River contributing to increased incidence of migration mortality, either as a result of stress, energy depletion, or increased susceptibility to parasitism and disease (Kocan et al. 2004; Kocan and Hershberger 2006).
- Migration into and up smaller, lake-dominated streams may be obstructed by beaver dams during low water years or droughts.
- Obstruction by hydroelectric dams and associated delays of migrating fish, particularly during warm water/low water years.