

Abundance and Run Timing of Adult Salmon in Long Lake in the Wrangell-St. Elias National Park and Preserve, 2010

Long Lake flows into Lakina River, a tributary of the Chitina River in the Copper River drainage. It provides important spawning habitat for sockeye salmon, which contribute to intensive down-river commercial and subsistence fisheries. The monitoring and evaluation of this run is essential to ensure that Wrangell - St. Elias National Park and Preserve (WRST) maintains natural and healthy populations of fish as required by the Alaska National Interest Lands Conservation Act (ANILCA). The Long Lake weir is one of several projects providing accurate assessment of yearly run strength and migratory timing in tributaries to the Copper River. In 2010 an underwater camera, DVR recording system and solar panel array were installed and used to enumerate salmon at this weir. The weir and recording system were installed August 1 and removed October 20. A total of 10,876 sockeye salmon migrated through the weir between August 12 and October 20. This was approximately 70% of the 37 year average weir count of 15,593 sockeye salmon, and represented about 1.2% of the total inriver run estimated by the Miles Lake sonar project. Run timing in 2010 started earlier and ended earlier than what was observed in the last eight years and was more in line with the average run timing from 1974-2007. Age, sex and length samples were collected from 9% of the escapement. Females comprised about 52% of the total sample. Age-1.2 sockeye salmon comprised 55% of the returning adults sampled; age-1.3 class comprised 39%. Average mid-eye-to-tail fork length of age-1.3 sockeye salmon was 565 mm for males and 545 mm for females, smaller than average sizes for the past four years.

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