Abundance and Run Timing of Adult Pacific Salmon in the Tuluksak River, Yukon Delta National Wildlife Refuge, Alaska, 2006

Abstract: The Kenai Fish and Wildlife Field Office operated a weir on the Tuluksak River, a tributary to the lower Kuskokwim River in the Yukon Delta National Wildlife Refuge, between June 30 and September 6, 2006. The resistance board weir was used to collect abundance, run timing, and biological data from returning salmon. These data supported in-season management of the commercial and subsistence fisheries in the Kuskokwim area. In 2006, 23,932 chum Oncorhynchus keta, 993 Chinook O. tshawytscha, 920 sockeye O. nerka, 2,093 pink O. gorbuscha and 2,393 coho salmon O. kisutch passed the Tuluksak River weir. Peak weekly passage occurred from July 16 to 22 for Chinook, chum, sockeye, and pink salmon, and from August 20 to 26 for coho salmon. Fish passage was calculated for 27 days when either partial or no escapement numbers were collected due to high water events. Escapement estimates were generated using average daily proportions of fish passing the weir on those days between 1991-1993 and 2002-2005. Based on corrections made to actual counts we estimated that 25,648 chum, 1,044 chinook, 985 sockeye, 2,448 pink, and 6,138 coho salmon escaped in 2006. Age 1.2 Chinook, 0.4 chum, and 2.1 coho were the dominant age classes. The sex ratios of chum and coho were approximately 1:1, while the Chinook salmon run was approximately 1:4 females to males.

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