

Kwethluk River Salmon Weir. Study No. 10-306, Annual 2012; and Study No. 12-309, Final Report.

Abstract: The Kenai Fish and Wildlife Field Office, assisted by the Organized Village of Kwethluk, monitored the escapement of five species of Pacific salmon *Oncorhynchus* spp. returning to the Kwethluk River. From July 3 to September 12, 2012, a resistance board weir was used to collect abundance, run-timing, age, sex, and length data from returning adult salmon. In conjunction with the weir, an underwater video system was affixed and used to collect abundance from August 8 to September 9, 2012. These data support in-season and post-season management of the commercial and subsistence fisheries that occur on the Yukon Delta National Wildlife Refuge and the Kuskokwim River drainage. High water levels affected weir operations during the majority of the field season, resulting in partial counts of 4,417 chum salmon *O. keta*, 945 Chinook salmon *O. tshawytscha*, 250 sockeye salmon *O. nerka*, and 144 pink salmon *O. gorbuscha*, and an estimated escapement of 20,895 coho salmon *O. kisutch*. The first passage date for chum, Chinook and sockeye salmon was July 3, the first day of operations. Pink salmon began passing through the weir on July 8, and coho salmon began July 30. Peak weekly passage occurred from August 26 to September 1 for coho salmon. Age, sex, and length data were collected for each species except pink salmon. Dominant ages were 0.3 for chum, 1.3 for Chinook, and 2.1 for coho salmon. Overall percentages for female salmon were chum 34%, Chinook 42%, and coho 52%. Mean lengths were dissimilar between male and female salmon for each species. Special management actions were taken during 2012 to conserve Chinook salmon in the Kuskokwim River drainage.

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