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TAKOTNA RIVER SALMON STUDIES, 2009

by

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ABSTRACT

The Takotna River, a tributary of the Kuskokwim River, produces Chinook *Oncorhynchus tshawytscha*, chum *O. keta*, and coho salmon *O. kisutch* that contribute to subsistence and commercial salmon fisheries downstream of its confluence. A weir has been operated annually on the Takotna River since 2000, and is part of an array of projects used to monitor salmon escapement in the Kuskokwim River drainage. Salmon were enumerated by species as they migrated through the weir to determine daily and annual escapements. Samples were collected to estimate the age, sex, and length composition of escapements using a live trap.

Total escapements of 311 Chinook, 2,487 chum, 4 sockeye *O. nerka*, and 2,708 coho salmon were determined for the target operational period 24 June to 20 September, 2009. Chinook and chum salmon escapements were below their historical medians, while coho salmon escapement was near its historical median. Age, sex, and length sampling in 2009 indicated the Chinook salmon escapement was 42% age-1.4, 30% age-1.3, and 28% age-1.2, with 42% female overall. The chum salmon escapement was 76% age-0.3, 18% age-0.4, 4% age-0.2, and 2% age-0.5, with 49% female overall. The coho salmon escapement was 92% age-2.1, 6% age-1.1, and 2% age-3.1, with 43% female overall. Escapement of age-1.3 Chinook and age-0.3 chum salmon in 2009 were low relative to historical levels at Takotna River weir. Despite low Chinook salmon escapement in 2009, the number of females was similar to more abundant years.

Key words: Chinook salmon, *Oncorhynchus tshawytscha*, chum salmon, *O. keta*, coho salmon, *O. kisutch*, longnose suckers, *Catostomus catostomus*, escapement, ASL, age-sex-length, salmon age composition, salmon sex composition, salmon length composition, Takotna River, Kuskokwim River, resistance board weir, radiotelemetry, mark-recapture, stock specific run-timing.