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TATLAWIKSUK RIVER SALMON STUDIES, 2009

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ABSTRACT

The Tatlawiksuk River is a major tributary of the Kuskokwim River and produces Chinook salmon *Oncorhynchus tshawytscha*, chum salmon *O. keta*, and coho salmon *O. kisutch* which contribute to subsistence and commercial salmon fisheries of the Kuskokwim River. The Tatlawiksuk River weir has operated since 1998 to estimate the return and age-sex-length compositions of salmon escapements, monitor environmental variables, and facilitate other Kuskokwim Area fisheries projects. In 2009, a resistance board weir was operated from 15 June to 22 September to estimate escapements of 3 species of Pacific salmon. Chinook escapement (1,071) was below average, chum escapement (19,975) was near average, and coho escapement (10,155) was above average. Samples were collected from fish caught in a live trap and used to describe the age and sex structure of the Chinook, chum, and coho salmon escapements. Females comprised 45.0% of the Chinook salmon escapement, 51.9% of the chum salmon escapement, and 47.8% of the coho salmon escapement. The Chinook salmon escapement was composed of 4 age classes, dominated by age-1.4 fish (46.6%). The chum salmon escapement was composed of 4 age classes, dominated by age-0.3 fish (64.4%). The coho salmon escapement was composed of 3 age classes, dominated by age-2.1 fish (83.9%).

The Tatlawiksuk River weir is one of several components which form an integrated array of escapement monitoring projects in the Kuskokwim Area. This array of projects provides a means to monitor and assess escapement trends that must be considered in harvest management.

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

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