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GEORGE RIVER SALMON STUDIES, 2010

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ABSTRACT

The George River is a major tributary of the Kuskokwim River and produces Chinook *Oncorhynchus tshawytscha*, chum *O. keta*, and coho salmon *O. kisutch* which contribute to subsistence and commercial salmon fisheries of the Kuskokwim River. George River weir has operated since 1996 to estimate the return and age, sex, and length compositions of salmon escapements, monitor environmental variables, and facilitate other Kuskokwim Area fisheries projects. In 2010, a resistance board weir was operated from 15 June to 20 September to estimate escapements of 3 species of Pacific salmon. Chinook escapement of 1,500 was below average; chum escapement of 26,154 was near average, and coho salmon escapement of 12,961 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 30.6% of the Chinook salmon escapement, 51.6% of the chum salmon escapement, and 51.5% of the coho salmon escapement. The Chinook salmon escapement was composed of 5 age classes, dominated by age-1.2 fish (35.9%). The chum salmon escapement was composed of 4 age classes, dominated by age-0.3 fish (87.7%). The coho salmon escapement was composed of 3 age classes, dominated by age-2.1 fish (89.6%).

The George 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, *Oncorhynchus keta*, coho salmon, *Oncorhynchus kisutch*, longnose suckers, *Catostomus catostomus*, George River, Kuskokwim River, upper Kuskokwim, escapement, age-sex-length, ASL, resistance board weir, radiotelemetry, mark-recapture, stock specific run timing