

ABSTRACT

The Takotna River weir has operated since 2000 to estimate the abundance and age-sex-length compositions of salmon escapements, monitor environmental variables, and facilitate other Kuskokwim Area fisheries projects. In 2008, a resistance-board weir was operated in the Takotna River from 20 June through 23 September to estimate escapements of 4 species of Pacific salmon *Oncorhynchus* spp. The total annual escapements of Chinook salmon *O. tshawytscha* (413 fish), coho salmon *O. kisutch* (2,817 fish), and sockeye salmon *O. nerka* (13 fish) were slightly below average. The total escapement of chum salmon *O. keta* (5,691 fish) was average. Age-sex-length samples taken from fish caught in a live trap were used to describe the age-sex structure of the Chinook, chum, and coho salmon escapements. Females comprised 24.6% of Chinook salmon escapement, 49.7% of the chum salmon escapement, and 51.4% of coho salmon escapement. The Chinook salmon escapement was comprised of 5 age classes dominated by age-1.3 fish (52.2%). Chum salmon escapement was comprised of 3 age classes, dominated by age-0.4 fish (61.3%). Coho salmon escapement was comprised of 3 age classes, dominated by age-2.1 fish (76.8%).

Takotna River weir is one of several components that 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 decisions in accordance with the State of Alaska's Policy for the Management of Sustainable Salmon Fisheries (5 AAC 39.222).

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.