

## **PIKMIKTALIK RIVER SALMON ESCAPEMENT ENUMERATION AND SAMPLING PROJECT, 2003-2005**

Much of the salmon subsistence harvest for the communities of Stebbins and St. Michael occurs on the Pikmiktalik River. The Pikmiktalik River is part of the Yukon Delta National Wildlife Refuge, and is the site of one of few Federal subsistence fisheries in the Norton Sound area. Local residents strongly feel that availability of in- and post-season escapement information would improve management of these fishery resources. Kawerak, Inc., in cooperation with the Stebbins and St Michael IRAs, conducted a salmon escapement enumeration and sampling project on the Pikmiktalik River in 2003, 2004 and 2005. The information collected provided baseline data regarding salmon abundance, run-timing and biological (age, sex, and length) data to the U.S. Fish and Wildlife Service and the Alaska Department of Fish and Game. Total estimated escapements in 2003, 2004 and 2005 respectively were 345, 225 and 153 Chinook *Oncorhynchus tshawytscha*; 7,707, 8,051 and 8,821 chum *O. keta*; 13,165, 50,621 and 56,469 pink salmon *O. gorbuscha*. The estimated total return for coho salmon (*O. kisutch*) in 2004 and 2005 was 11,799 and 17,718, however, due to a flooding event in 2004, the estimated return of coho was probably higher. Additionally, a total of 527, 616 and 123 Dolly Varden (*Salvelinus malma*) were counted in 2003, 2004 and 2005 respectively. Finally, the net movement of 915, 514 and 1609 whitefish (*Coregonus* sp.) was recorded in 2003, 2004 2005 respectively. The ratio of chum females to males was a consistent 1:1 in 2003, 2004 and 2005. However, the age class ratios did change substantially during that same period. Age, sex and length data collected from chum salmon indicated that most abundant age class in 2003 was 4-year-olds, which made up 82.8% of chum captured. In 2004, the most abundant age class was 5-year-old chum salmon, which accounted for 47.9% of the total sample and in 2005, 92.8% of the chum run was made up of 4 year old fish. Males were generally longer than females, and older salmon were generally longer than younger ones for both chum and coho salmon. Of the coho sampled in 2004 and 2005, the ratio of females to males was very similar, and the age composition was consistent between years (83.6-83.8% of coho were age 2.1 and 14.3 and 14.8% were age 1.1).

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