

## **Tatlawiksuk River Salmon Studies, 2004**

### **ABSTRACT**

The Tatlawiksuk River is a tributary of the Kuskokwim River, and produces Chinook salmon *Oncorhynchus tshawytscha*, chum salmon *O. keta*, and coho salmon *O. kisutch* that contribute to intensive subsistence and commercial salmon fisheries downstream of its confluence. The Tatlawiksuk River weir is one of several projects operated in the Kuskokwim Area that form an integrated geographic array of escapement monitoring projects. Collectively, and in accordance with the State of Alaska's Policy for the Management of Sustainable Salmon Fisheries (5 AAC 39.222), this array of projects is a tool to assure appropriate geographic and temporal distribution of spawners, and provide a means to assess trends in escapement that should be monitored and considered in harvest management decisions. Towards this end, Tatlawiksuk River weir has been operated annually since 1998 to determine daily and total salmon escapements for the target operational period of 15 June through 20 September; to estimate age, sex, and length compositions of Chinook, chum, and coho salmon escapement; to monitor environmental variables that influence salmon productivity; and to provide part of an integrated platform in support of other Kuskokwim Area fisheries projects.

In 2004, a resistance board weir was successfully operated on the Tatlawiksuk River from 15 June through 18 September. Escapements for the target operational period included 2,833 Chinook, 21,245 chum, and 16,410 coho salmon. Formal escapement goals do not exist for the Tatlawiksuk River; however, Chinook and coho salmon escapements were higher than in previous years, and the chum salmon escapement was above average. Age, sex, and length data indicate a relatively strong return of age-1.2 Chinook salmon and an unusually high abundance of age-0.2 chum salmon, patterns similar to what were seen throughout the array of Kuskokwim River salmon escapement monitoring projects in 2004. Information recovered at the weir from fish tagged in the mainstem Kuskokwim River suggest that Tatlawiksuk River salmon tend to migrate through the lower Kuskokwim River tagging site during the first half of the respective runs for each species. Tatlawiksuk Chinook salmon, in particular, are consistently among the earliest arriving Chinook salmon at the tagging site. Weir operations also supported collection of tissue samples from 100 coho salmon as part of a genetic stock identification study over the entire range of the species in the North Pacific Ocean.

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