AGE, SEX, AND LENGTH COMPOSITION OF CHINOOK SALMON FROM THE 2004 KUSKOKWIM RIVER SUBSISTENCE FISHERY

Age, sex, and length (ASL) data were collected from Chinook salmon *Oncorhynchus tshawytscha* harvested during the 2004 Kuskokwim River subsistence fishery to characterize the composition of the harvest from the lower river reporting area. Twenty-one subsistence fishers, from 4 lower river communities, collected the samples. A total of 2,290 Chinook salmon were sampled and ages were determined for 1,979 (86%). Samples were collected from fish caught with a variety of gillnet mesh sizes, but most Chinook salmon (91%) were caught in gillnets with a mesh size ≥ 8 inches (i.e., large mesh gear). The lower river harvest accounts for 86% of the total river harvest and the age composition from lower river sampling was applied to the total river harvest. In 2004 the subsistence harvest is estimated to be 32.5% female and 46.5% age-1.4, 36.5% age-1.3, 13.9% age-1.2 and 2.6% age-1.5 Chinook salmon.

Differences in the age composition of Chinook salmon estimated from the subsistence harvest, commercial harvest, and tributary escapements were attributed to gillnet size selectivity. Fewer young and more older Chinook salmon were harvested in the subsistence fishery using mesh sizes ≥ 8 inches. Age-1.2 male Chinook salmon accounted for 13.8% of the subsistence harvest, 34.5% at the escapement projects, and 57.8% from the commercial harvest from District W-1 where mesh size is restricted to ≤ 6 inches. Older Chinook salmon (age 1.4 and 1.5) accounted for 48.7% of the subsistence harvest, 31.8% at tributary escapement projects, and 15.2% from the commercial harvest. Female Chinook salmon comprised 32.5% of the subsistence harvest, which was considerably higher than the 11.6% female average from District W-1 commercial harvest, and 25.4% female average from escapement projects.

Sampling of the 2004 subsistence Chinook salmon harvest for ASL composition was limited to the lower Kuskokwim River, unlike previous years where middle and upper river samples were collected. Data collected in 2004 continues the baseline begun in 2002 to assess changes in the ASL composition in response to the subsistence fishing schedule, which was instituted as a management tool in 2001 after Kuskokwim River Chinook salmon were identified as a stock of concern by the Alaska Board of Fisheries.

Molyneaux, D. B., D. L. Folletti, L. K. Brannian, and G. Roczicka. 2005. Age, sex, and length composition of Chinook salmon from the 2004 Kuskokwim River subsistence fishery. U.S. Fish and Wildlife Service, Office of Subsistence Management, Fisheries Resource Monitoring Program, 2004 Annual Report (Study No. 04-353). Alaska Department of Fish and Game, Fishery Data Series No. 05-45, Anchorage.