The purpose of this project was to use fishwheels and two-sample mark-recapture methods for long-term monitoring of Chinook salmon *Oncorhynchus tshawytscha* escapement, and shortterm monitoring of sockeye salmon *O. nerka* escapement on the Copper River. This report summarizes results from the 2007 field season, the seventh year since the project's inception. Objectives for 2007 were to: 1) estimate the inriver abundance of Chinook and sockeye salmon returning to the Copper River such that the estimates were within 25% of the true escapements 95% of the time; and 2) continue a long-term monitoring program operated by the Native Village of Eyak (NVE). For the first sample event, up to three live-capture fishwheels were operated at Baird Canyon for a total of 4,495 h from 18 May to 6 August. During this period, 4,456 adult Chinook salmon and 11,027 adult sockeye salmon were marked. For the second sample event, up to two fishwheels were operated at Canyon Creek near the lower end of Wood Canyon for 3,717 h from 28 May to 19 August. A total of 4,192 Chinook salmon and 56,551 sockeye salmon were examined for marks. Of these, 459 Chinook salmon and 521 sockeye salmon were recaptures.

Using a temporally stratified Darroch estimator, estimated abundance of Chinook salmon measuring 500 mm FL or greater that migrated upstream of Baird Canyon from 18 May to 6 August was 46,349 (SE = 3,283). Using a similar estimator, estimated abundance of sockeye salmon that migrated upstream of Baird Canyon from 18 May to 6 August was 1,290,591 (SE = 92,590). The median travel time of fish marked at Baird Canyon and recaptured at Canyon Creek (91 km upstream) was 12.2 d for Chinook and 9.5 d for sockeye salmon. Funding through the Fisheries Resource Monitoring Program (FRMP) for the Chinook and sockeye salmon markrecapture

studies has been approved through 2009. These highly successful and long-term monitoring programs have made NVE an integral part of Copper River salmon research.

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