

Estimation of Coho Salmon Escapement in Streams Adjacent to Perryville and Sockeye Salmon Escapement in Chignik Lake Tributaries, Alaska Peninsula National Wildlife Refuge, 2003-2008

Runs of coho salmon *Oncorhynchus kisutch* in the Kametolook, Three Star, and Long Beach rivers near Perryville have declined, and residents can no longer meet their subsistence needs in those rivers. Local residents are now taking coho salmon from streams outside the immediate vicinity of Perryville. With fishing effort spread out to other streams, managers need to ensure escapement is maintained to meet the subsistence needs of the Native Village of Perryville. In order to prevent over harvest of these small stocks, escapement needs to be monitored.

Monitoring of sockeye salmon *O. nerka* escapement in Clark River, a tributary to Chignik Lake, is also necessary to ensure escapement is maintained to meet subsistence needs for residents of the Chignik villages. In 2008, two aerial surveys were conducted to count adult coho salmon in streams near Perryville and sockeye salmon in Clark River using low-level helicopter flights.

Overall numbers and run timing of coho salmon in 2008 were similar to previous years. Sockeye salmon counts in the Clark River were lower in 2008 than in previous years. Local water conditions prevented us from obtaining complete counts in some streams. Coho salmon returns to streams near Perryville and late run sockeye salmon returns to the Clark River have been sufficient to meet subsistence needs while maintaining population levels in recent years. Given current levels of harvest and escapement, we do not recommend continuing this project.

However, changes in commercial or subsistence harvest patterns can threaten the viability of local stocks.

Citation: Anderson, J. L. 2008. Estimation of coho salmon escapement in streams adjacent to Perryville and sockeye salmon escapement in Chignik Lake tributaries, Alaska Peninsula National Wildlife Refuge, 2003-2008, Final Report (Study Number 07-404). U. S. Fish and Wildlife Service, Anchorage Fish and Wildlife Field Office, Alaska Fisheries Data Series Report Number 2009-6, Anchorage, Alaska.