

## **Extend Coghill Lake Adult Escapement Weir Operations**

**Abstract:** Operation of the weir at Coghill River was extended into the fall to determine escapement of coho salmon. The estimated escapements from weir counts were 765 in 2000, 1,258 in 2001, and 2,328 in 2002. However, weir operations were hampered by high flow events causing missed counts during high migration periods. In response, a mark recapture experiment was added in 2002 to estimate total escapement (+50%, 95% of the time). Using Chapman's modification of the Peterson model, we estimated the population size at 4,932 fish (SE=945). If monitoring coho salmon is planned in the future, we recommend using a floating type weir. If a less precise estimate is required, a mark recapture experiment could be conducted much more efficiently and cost effectively. Although there were problems with using a picket type weir in the fall, it is apparent that the coho salmon population is relatively small and could be susceptible to over harvest if use increases dramatically. As this population of coho salmon is one of the largest in western Prince William Sound, we recommend further monitoring if use increases substantially.

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