

ABSTRACT

A weir was operated at Billy's Hole, part of Long Bay in Prince William Sound, Alaska, during June 14-September 13, 2003 and June 12-September 10, 2004. Fish were counted and sampled as they passed through the weir. Recreational and subsistence users were interviewed concerning their demographics, fishing effort and harvest.

A total of 1,164 sockeye salmon *Oncorhynchus nerka* and 113 coho salmon *O. kisutch* were counted in 2003. Ninety-eight percent of the sockeye salmon in the escapement were age 1.3. Fifty percent of the coho salmon were age 1.1 and the rest were 2.1. Twelve recreational anglers were interviewed. No subsistence users were interviewed or observed in 2003. Ten salmon were sampled from the recreational harvest. All were sockeye aged 1.3. Stream temperatures and water levels were recorded daily.

In 2004, 985 sockeye salmon and 135 coho salmon were counted as they passed through the weir. Of those, 56% of the sockeye salmon escapements were age 1.3, 35% were age 1.2, 5% were age 2.3, 2% were age 2.2, 1% were age 1.4, 0.5% were age 2.1 and 0.5% were age 0.3. Of the 128 coho salmon aged in 2004, 58% were age 1.1, 41% were age 2.1 and 1% were age 3.1. Two groups of subsistence users and 11 groups of recreational anglers were interviewed. One sockeye was aged from the subsistence harvest (age 1.3) and 29 sockeye were aged from the recreational harvest. Forty-eight percent of those fish were age 1.2, 38% were age 1.3, and 14% were age 2.2. Stream temperatures and water levels were recorded daily. Limnological sampling of Billy's and Gull lakes was also conducted in 2003 and 2004.

Key words: Billy's Hole, Long Bay, Prince William Sound, sockeye salmon, *Oncorhynchus nerka*, coho salmon, *Oncorhynchus kisutch*, weir, subsistence user, recreational angler, age composition.

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