

MEMORANDUM

STATE OF ALASKA DEPARTMENT OF FISH AND GAME Division of Sport Fish

TO: Distribution
DATE: August 2, 2016

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SUBJECT: 2016 Kenai River late-run king salmon revised sonar estimates

A computer programming error discovered July 28 has caused the Alaska Department of Fish and Game to revise daily sonar passage estimates of Kenai River late-run king salmon from July 7-26. After correcting the error, the estimated number of king salmon less than 34 inches in length, and thus the total number of king salmon, are 1,900 fish less than the original estimates for the 20-day period. No revisions were required to the threshold estimates of fish larger than 34 inches, passage estimates from July 1-6 and after July 26, or to any early run estimates.

The error was in the programming code used to estimate passage, not due to error in study design or data collection for the sonar or inriver netting projects. The programming error resulted in not including a portion of the sonar data collected during July 7-26 and affects estimating number of king salmon that pass upstream of the river mile 13.7 sonar site. Data collected from the five sonar units divide the river into 11 sections based on distance from each sonar unit. Fish length measurements from one of the eleven sections were not included in the estimation process. This section was near the river bank, an area with more small fish and fewer large fish than the river as a whole. Because this (mostly small fish) length data was not included in the analysis, the original estimate of the proportion of king salmon was too high, causing an over-estimate of the number of king salmon.

The computer code was revised and the estimates corrected on the department's Fish Count webpage

(<http://www.adfg.alaska.gov/sf/FishCounts/index.cfm?ADFG=main.kenaiChinook>).

Table showing original and revised estimates of total Kenai River late-run king salmon passage by day for July 7-26.

Date	Original	Revised
7-Jul-16	394	328
8-Jul-16	582	463
9-Jul-16	631	497
10-Jul-16	926	758
11-Jul-16	1,059	902
12-Jul-16	1,283	1,111
13-Jul-16	980	788
14-Jul-16	870	784
15-Jul-16	641	531
16-Jul-16	357	300
17-Jul-16	545	471
18-Jul-16	700	591
19-Jul-16	543	527
20-Jul-16	408	357
21-Jul-16	490	429
22-Jul-16	719	637
23-Jul-16	557	532
24-Jul-16	609	544
25-Jul-16	642	548
26-Jul-16	472	410
Total	13,408	11,508