





# 2017: Post Season Analysis Prospect and Forecast for Yukon Chinook Salmon Timing Lower Yukon River (Area Y-1), October 17, 2017

## How Did the Qualitative 2017 Timing Prospect Perform?

The 2017 timing prospect (issued June 1) was on target. The prospect anticipated the first significant pulse (15% point of the migration) on the delta at around **June 10, and the observed 15% point was June 11, which is earlier than average.** The prospect called for the half-way point (50%) to be a little early to average, occurring about **June 19, and the observed 50% point was June 20, a little earlier than average.** The April mean air temperature at Nome this year (-0.7C or 30.7F) was substantially warmer than the long-term average 1961 – 2017 (-6.8C or 19.8F). In keeping with the very warm early spring conditions in northwestern Alaska, the spring (March 19 – May 31) sea ice concentrations (45.3%) were lower than the long-term average (56.3%). The effects of warmer than average early spring conditions were moderated by near-average later spring conditions in May. Mean sea surface temperatures as modeled just off the delta (-0.3C or 31.4F) were only slightly warmer than the long-term average sea surface temperatures (-0.4C or 31.2F) in May.

## How Close Was the Timing Forecast for 2017?

The <u>2017 timing forecast</u> was very close to the actual timing (see Table). Chinook began to arrive at the end of May. The run developed as expected with the middle of the migration occurring June 20. Please visit the <u>project web site</u> for a copy of all data and more details about the forecast.

| Percentage Points | Predicted Dates | <b>Observed Dates</b> | Obs – Pred (Days) |  |  |  |
|-------------------|-----------------|-----------------------|-------------------|--|--|--|
| Fifteen           | June 10         | June 11               | 1                 |  |  |  |
| Twenty-five       | June 13         | June 13               | 0                 |  |  |  |
| Fifty             | June 19         | June 20               | 1                 |  |  |  |
|                   |                 |                       |                   |  |  |  |

### <u>Credits</u>

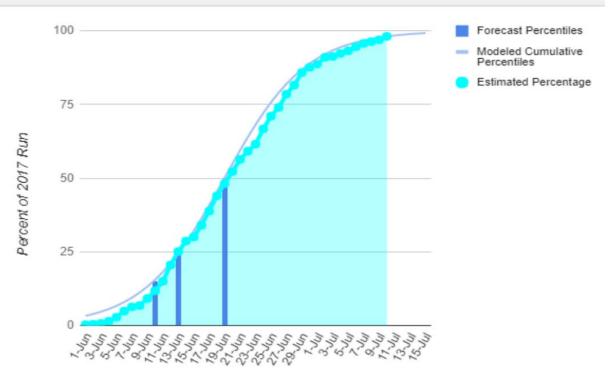
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### TABLE OF OBSERVED TO MODELED TIMING, AND ERRORS OF FORECASTS, 2012 – 2017 ON PAGE FOLLOWING

| Year  | Percentile | Date Observed | Date Forecast | Obs - Fcst |
|-------|------------|---------------|---------------|------------|
| 2012* | 15         | June 22       | June 17       | -5         |
| 2013  | 15         | June 21       | June 21       | 0          |
| 2014  | 15         | June 12       | June 11       | 1          |
| 2015  | 15         | June 15       | June 17       | -2         |
| 2016  | 15         | June 9        | June 9        | 0          |
| 2017  | 15         | June 11       | June 10       | 1          |
|       |            |               |               |            |
| 2012* | 50         | July 2        | June 25       | -7         |
| 2013  | 50         | June 28       | June 28       | 0          |
| 2014  | 50         | June 21       | June 19       | 2          |
| 2015  | 50         | June 23       | June 26       | -3         |
| 2016  | 50         | June 19       | June 19       | 0          |
| 2017  | 50         | June 20       | June 19       | 1          |

Source: 2017 Table of Forecasts Observed and Expected for power point.docx

<sup>2017</sup> Chinook Forecast : Chart1



Source: AOOS web site linked here