

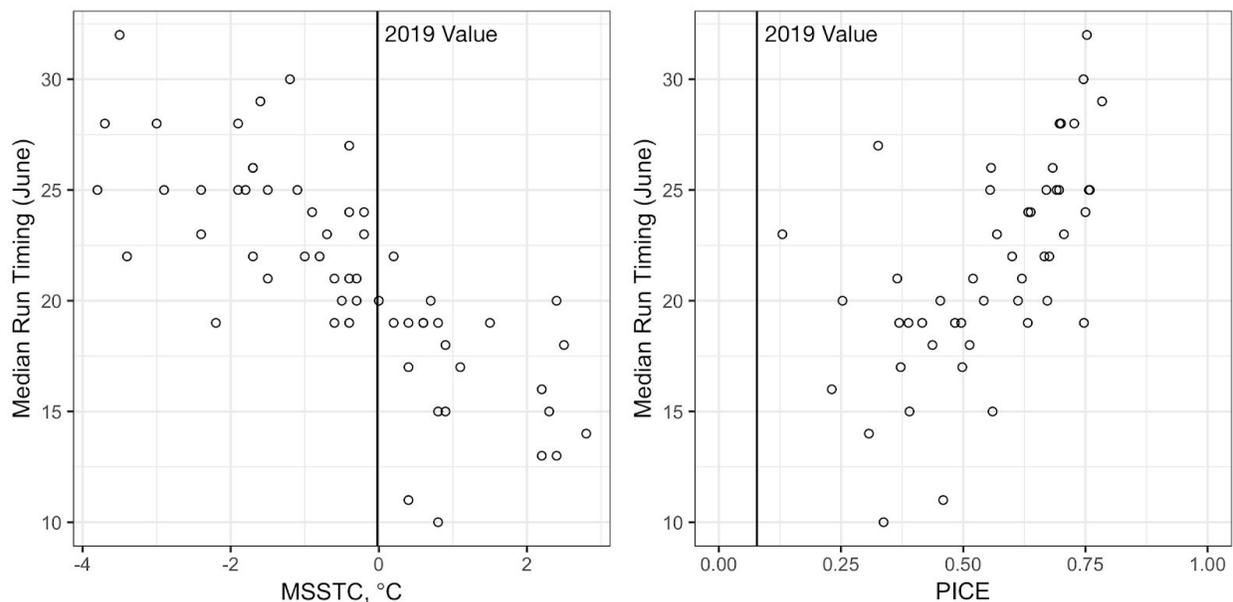


Monday, June 3rd, 2019

## Final 2019 Pre-Season Yukon River Chinook Run Timing Forecast

Continued warm and unusual springtime conditions in the Bering Sea through May suggests a cautious approach to forecasting run timing in 2019. The final pre-season run timing forecast is for a moderate run timing with a 50% point of June 18 which is just slightly earlier than average.

Notably, average sea ice cover over the nominal staging from the vernal equinox to the end of May was the lowest in observation at 7.8% (Mean: 54%; Range 7.8 – 78%). For detailed information on ice conditions in the Bering Sea, visit <https://nsidc.org/arcticseaicenews/>. Low sea ice cover usually indicates early to average run timing. In slight contrast to the low sea ice cover, sea surface temperatures were moderate during May at  $-0.43^{\circ}\text{C}$  (Mean:  $-0.43^{\circ}\text{C}$ ; Range  $-3.8 - 2.8^{\circ}\text{C}$ ).



**Figure 1.** Relationship between mean sea surface temperature in the nominal staging area during May (MSSTC, left panel) and the proportion of ice cover in the same area from the vernal equinox through the end of May (PICE, right panel). 2019 values indicated by solid vertical lines.

Based on the full forecast model [1], we forecast that 15% of the run will arrive on the Yukon River Delta by June 11th, 25% by June 14th, and 50% by June 18th. Note that these

dates are only slightly different than the dates published in the early-look forecast issued last month.

## **Credits**

Prepared and reviewed by Bryce Mecum (brycemecum@gmail.com), Jordan Watson (jordan.watson@noaa.gov) , and Phil Mundy (proymundy@gmail.com). Data management and web page support by Will Koeppen (will@axiomalaska.com). Web support also provided by Holly Kent (kent@aoos.org). Yukon Chinook in-season salmon data and management agency coordination by Fred West (fred.west@alaska.gov), Holly Carroll (holly.carroll@alaska.gov), and Sean Larson (sean.larson@alaska.gov). Financial and material supports were provided by the Alaska Ocean Observing System, NOAA National Marine Fisheries Service, and the Alaska Department of Fish and Game.

## **Footnotes**

[1] Phillip R. Mundy, Danielle F. Evenson, Environmental controls of phenology of high-latitude Chinook salmon populations of the Yukon River, North America, with application to fishery management, ICES Journal of Marine Science, Volume 68, Issue 6, July 2011, Pages 1155–1164, <https://doi.org/10.1093/icesjms/fsr080>