

Genetic stock composition of juvenile Chinook salmon collected off the mouth of the Yukon River: Are these Yukon River fish?

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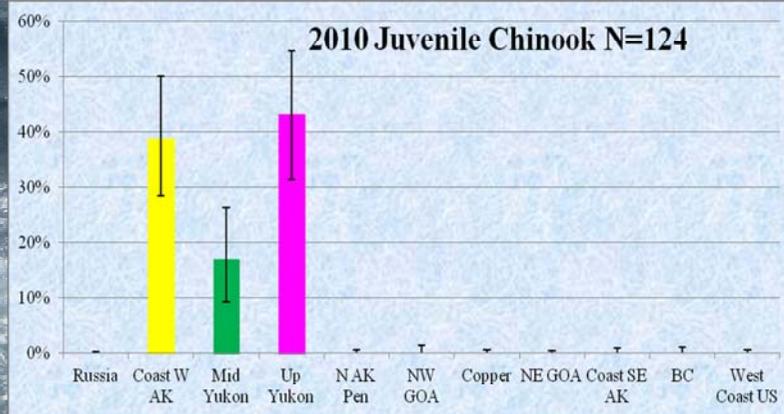
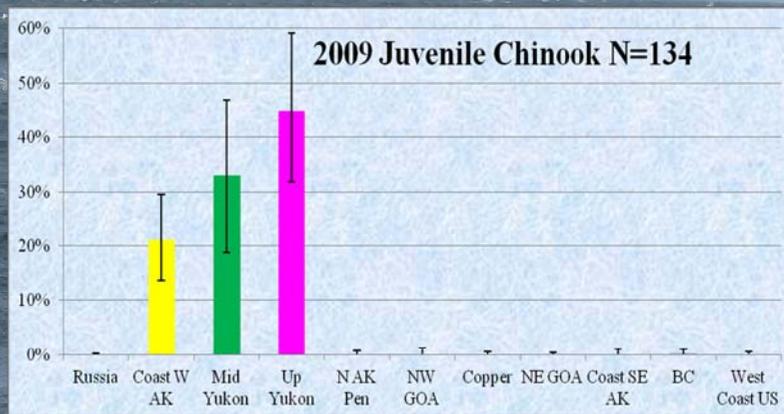
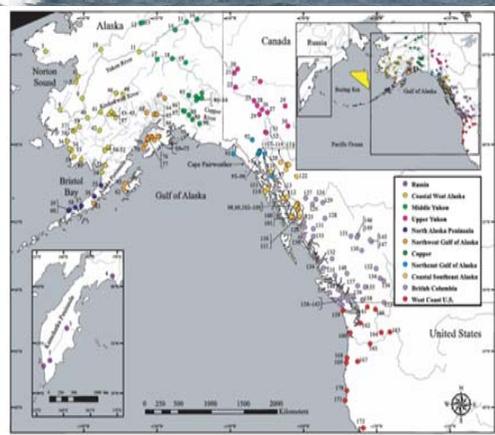
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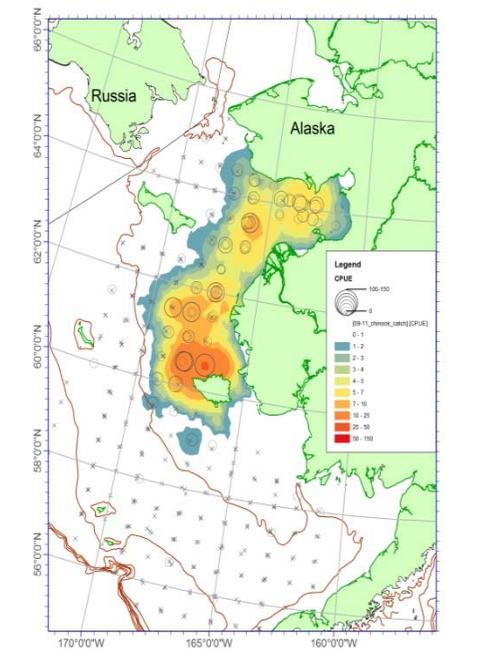
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Numerous Federal and state commercial fisheries disaster declarations have been issued for Yukon River Chinook salmon over the last 20 years and low Alaska returns statewide have prompted calls for research to help ascertain potential causes for Chinook salmon declines. As part of annual BASIS research surveys conducted by the NMFS, juvenile Chinook salmon were collected off the mouth of the Yukon River between 2009 and 2011.

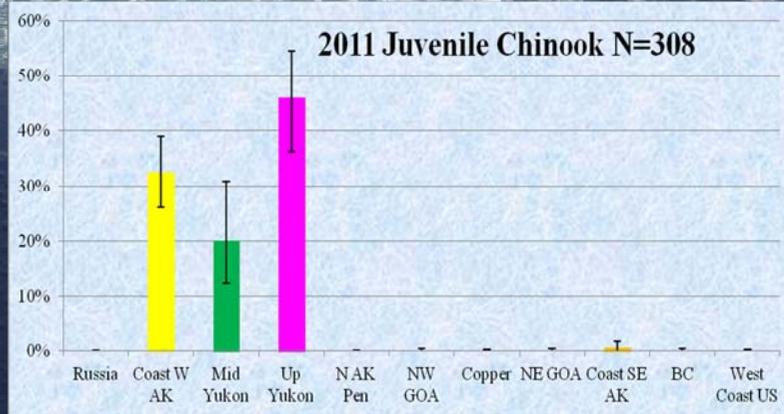
43 SNP baseline, from Templin et al. 2011



Distribution of 2009-11 juvenile Chinook



These samples were genotyped for the genetic markers represented in the ADF&G Chinook salmon genetic baseline and preliminary estimates of the stock composition of these samples are presented. Initial results suggest that these juvenile Chinook salmon predominantly originated from coastal western Alaska (includes the lower Yukon), middle Yukon, and the upper Yukon stocks. While the sample numbers in this study were relatively small, these results suggest that research cruises positioned offshore Alaska between 60° and 65°N latitude could be used to collect Yukon-origin juvenile Chinook salmon for other analyses potentially including future models to predict relative abundance of returns.



The findings and conclusions in this poster are those of the authors and do not necessarily represent the views of the National Marine Fisheries Service, NOAA