

ADF&G LETTER TO EPA RE PORTFOLIO



June 1, 2020

Mr. Hladick,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 10
1200 Sixth Avenue, Suite 155
Seattle, WA 98101-3188

Mr. Hladick:

This letter is in response to your May 28, 2020 letter to the U.S. Army Corps of Engineers in which you reference an unpublished report by the Alaska Department of Fish and Game Gene Conservation Laboratory. This report is cited as the source of an evaluation of the sockeye salmon spawning in the Kaktuli River as representing “a genetically distinct population of river-type salmon that is evolutionarily important and distinctly unique within the Bristol Bay watershed and Alaska.”

The citation is to a pending report on the 2020 update of the genetic baseline used for stock identification of Bristol Bay sockeye salmon. The initial laboratory and statistical analyses have been completed, but the analyses have not been reviewed and no draft report has been written describing the baseline. As such, the above quoted statement did not originate from this report, but is an EPA interpretation based on genetic relationships among populations in the baseline as seen in the initial statistical analysis. A final version of the report will be available this fall/winter.

It would be more appropriate to cite two other publications that describe the populations in question and have been through department review. The first includes the Kaktuli River as part of the Nushagak River reporting group and discusses the impact of the river-type ecotype of sockeye salmon on mixed stock analysis performance (Dann et al. 2012)¹. This baseline was updated in Shedd et al. (2016)².

The current, unreported baseline shows the same relationship among Upper Nushagak/Mulchatna populations as the two published baselines. These four populations (Upper Nushagak, Upper Mulchatna, Kaktuli, and Stuyahok rivers) are most closely related to each other and are all clustered together above a single node.

¹ Dann, T. H., C. Habicht, J. R. Jasper, E. K. C. Fox, H. A. Hoyt, H. L. Liller, E. S. Lardizabal, P. A. Kuriscak, Z. D. Grauvogel, and W. D. Templin. 2012. [Sockeye salmon baseline for the Western Alaska Salmon Stock Identification Project](#). Alaska Department of Fish and Game, Special Publication No. 12-12, Anchorage.

² Shedd, K. R., T. H. Dann, H. A. Hoyt, M. B. Foster, and C. Habicht. 2016. [Genetic baseline of North American sockeye salmon for mixed stock analyses of Kodiak Management Area commercial fisheries, 2014–2016](#). Alaska Department of Fish and Game, Fishery Manuscript Series No. 16-03, Anchorage.

Sockeye salmon spawning in the Kaktuli River are considered a separate population within our genetic baseline, and the river-type ecotype of sockeye salmon is recognized as an evolutionarily important life history. However, the Kaktuli River population is one of four genetically similar but distinct populations of river-type sockeye salmon within the Nushagak River basin in our baseline. In addition, while river-type sockeye salmon are uncommon within Bristol Bay, five other populations of river-type sockeye salmon included in our baseline spawn within the Bristol Bay Management Area, including populations in the Togiak, Wood, and Ugashik watersheds.

In the opinion of the ADF&G Principal Geneticist, the Kaktuli River population of sockeye salmon represents one of four closely-related Nushagak River populations with a river-type life history in the baseline. Together, these populations represent an important component of the genetic portfolio of sockeye salmon in Bristol Bay.

Respectfully,



Doug Vincent-Lang
Commissioner

cc: Jason Brune, Commissioner, ADEC
Corri Feige, Commissioner, ADNR
Ben Stevens, COS, Governor's Office
Kip Knudsen, Director, Governor's Washington Office
Greg Siekaniec, USFWS, Alaska Region