

Submitted by the Alaska Department of Fish and Game at the request of Board Member Wood.
January 14, 2020

At the Kodiak Board of Fisheries meeting on January 13, 2020 during committee of the whole Group 1, the department received an information request from the Alaska Board of Fisheries (board) during discussion on proposals 44 and 56. This request asked the Alaska Department of Fish and Game (department) to provide written information in regards to new genetic stock structure information on Kamishak Bay and Kukak Bay of Kodiak Management Area. In response, the department is providing the following information:

As a part of a 2017 EVOS funded study to determine genetic stock structure of Pacific Herring in the Gulf of Alaska, the analyses pointed to a highly significant difference between herring samples collected in Cook Inlet (May 2012 and 2013; Iliamna and Kamishak) and Kukak Bay (May 2013); strongly suggesting these are different spawning populations (Figure 1). The study does not address the potential for spawning stocks to mix in overwintering aggregations. Final publication is pending.

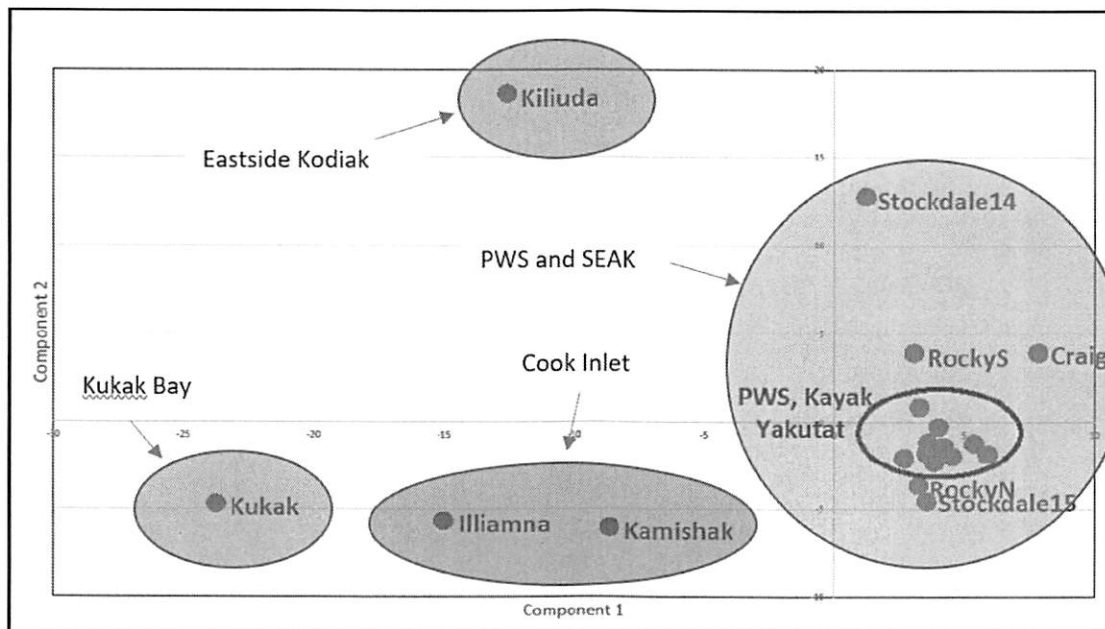


Figure 1. Principal component analysis of Gulf of Alaska herring collections based on allele frequencies of 13 microsatellite loci (Wildes et al. in prep). Some general geographic areas designated in ovals.

Reference cited:

Wildes S. L., Hv. Nguyen, and J. R. Guyon. 2017. Genetic stock structure of herring in Prince William Sound. Exxon Valdez Long-Term Herring Research and Monitoring Program Final Report (Restoration Project 16120111-P), Exxon Valdez Oil Spill Trustee Council.