

Alaska Hatchery Research Program Science Panel meeting January 22, 2026

Virtual meeting via Microsoft Teams

Summarized meeting notes and decision points

Attendees

Science Panel

Milo Adkison, Alaska Department of Fish and Game (ADF&G)
Peter Westley, University of Alaska
Bill Smoker, University of Alaska (retired)
Bill Templin, ADF&G
Alex Wertheimer, National Marine Fisheries Service (NMFS; retired)
Lorna Wilson, ADF&G
Kristen Gruenthal, ADF&G
Chris Habicht, ADF&G (retired)
Samuel May, Center for Aquaculture Technologies
Ron Josephson, ADF&G (retired)
Jeff Hard, Northwest Fisheries Science Center (NMFS; retired)

Unable to attend

John Burke, ADF&G and Southern Southeast Regional Aquaculture Association (SSRAA; retired from both)
Susan Doherty, SSRAA

Finance Committee

Mike Wells, Valdez Fisheries Development Association
Geoff Clark, Prince William Sound Aquaculture Corporation
Tina Fairbanks, Kodiak Regional Aquaculture Association
Katie Harms, Douglas Island Pink and Chum, Inc (DIPAC)
Scott Wagner, Northern Southeast Regional Aquaculture Association (NSRAA)
Tessa Frost, SSRAA, General Manager
Julie Decker, Pacific Seafood Processors Association

Other Attendees

Lauren Bell, Sitka Sound Science Center (SSSC)
Pete Rand, Prince William Sound Science Center (PWSSC)
Garold V. "Flip" Pryor, ADF&G
Eric Prestegard, DIPAC (retired)
Sara Gilk-Baumer, ADF&G
Kyle Shedd, ADF&G
Erica Chenoweth, ADF&G
Heather K. Fulton-Bennett, ADF&G
Heather L. Scannell, ADF&G
Nicholas Bird, Rochester Institute of Technology, Student
Erika King, ADF&G
Tommy Sheridan, UAF Alaska Blue Economy Center

Introductions and Planning 2026-2027

- General welcome and agenda review
 - unanimous acceptance of agenda and goals
 - The primary goal of this meeting is to provide updates on: 1) PWS pink salmon first and second-generation results that will be presented at the Alaska Marine Science Symposium, 2) SEAK chum salmon pedigree status and timeline, and 3) Public communication of results 2026.

Financial Review

- Flip P. presented the updated Proforma budget (Excel Sheet)
 - Reviewed improvements thanks to Kyle Paddleford, ADF&G head accountant's assistance:
 - Minor errors corrected
 - Reduced overall budget shortfall from \$255,000 to \$240,000
 - Most financing needed for FY26, not FY27, but this depends on approach to distributing results and scheduling meetings
- Discussion
 - Julie Decker (PSPA) confirmed that the \$4,000 listed and another \$80,000 are planned to be disbursed by end of January 2026
 - The suggestion was made to consider applying for additional funds through Dept. for pink salmon disaster funding (PWS)
 - **Action needed:** Bill T. will check in on this possibility
 - No hatchery committee meeting scheduled for spring of 2026, shifted 2026 distribution expectations

Update on Outstanding Analyses / Products

- Kyle S. reviewed the following updates:
 - "Tiger Team" analysis group consists of Kyle S., Erika K., Kristen G., Peter W., Milo A., Lorna W., Sam M., Alex W. and Jeff H.
 - PWS pink salmon pedigrees were finalized over the summer of 2025
 - focus is now on the Relative Reproductive Success (RRS) analysis and the modeling component, which considers run timing, spawning location, and all other variables discussed in previous Science Panel meetings.
 - Materials to be presented at the 2026 Alaska Marine Science Symposium (AMSS) are PWS pink first-generation fitness results (Erika – oral presentation) and PWS pink second-generation fitness (Kyle – poster presentation)
- Erika K. shared her draft prepared talk for AMSS (see PowerPoint Presentation)
 - Discussion
 - The consensus was that the presentation was well done
 - The question was asked whether there was a value for absolute fitness of a stream or sound-wide value, taking stray rates into account; that was not data available at the time of meeting
 - The question of variability among streams was discussed. The overall headline was that the RRS of hatchery strays were lower than natural origin fish

- Tiger Team has discussed mechanisms and think it's likely tied to run timing and temperature, fish spawn and offspring emerge at suboptimal times, leading to reduced RRS
- Some advice was to streamline the presentation even more (cut F2 information) to help guide audiences to understand and allow more discussion of what it means, with time for questions that might arise, as far as mechanisms go
 - run timing -- could be a genetic effect
 - for subsequent generations, maybe that matters.
 - then, they come late and then don't spawn.
 - Could be ecological...help people walk through what some of the mechanisms are. Potentially more useful than full details.
- Questions were asked about the model (hurdle model as per Neutzel et al. 2023; <https://doi.org/10.1139/cjfas-2022-0114>), and it was confirmed by Kyle S. that all the available data was given to the model, and it tried to explain as much of the variation as possible; variables are dropped if not informative
 - This is part of how run timing, temperature regime, came out as factors affecting RRS
 - Threads (<https://palamaralab.github.io/software/threads/>), developed by Palamara Lab, was suggested as a possible alternative modeling framework
- Nicholas B. offered ways to understand variable participation, column by column, to allow insight into the relative impact of randomness for a given variable, if of interest to Science Panel (not for presentation)
- Interest was expressed in better understanding the ancestral effects depending on hatchery, but it was acknowledged that for this talk, the headline effect still stands
- The reminder was presented that whole genome research, such as the collaborative effort with Purdue, will assist future work, given that run timing, for example, is largely controlled by a single gene region
- Elaboration on the reduced effect observed in F2 for this talk would be messy and complex; it was recommended to leave it out for the purposes of this short talk
- Bill T. affirmed that the long-term goal of this work was to help develop tools, rubrics, some sort of information that decision makers can use to evaluate proposals down the road (such as cuts in hatchery production)
- Kristen G. and Chris H. reminded the group that so far the picture matches the larger population genetics picture, with some signals, but still working within extremely shallow population structure
- Kyle S. shared the PDF file of his poster (PWS pink second-generation fitness)
 - The consensus was that the poster was well done.

- Some language adjustments were recommended (swap “severe” with “substantial”), and it was encouraged to highlight that F2 hatchery strays were less likely to have any offspring assigned.
- Kristen G. and Kyle S. provided updates on outstanding papers and on the chum GT-seq primer panel work (will inform pedigree construction)
 - Finalized chum primer panel includes 237 primer pairs, 374 different SNPs (single nucleotide polymorphisms)
 - Run timing loci included
 - 129 single SNPs, 108 microhaplotypes
 - Pink salmon pedigree publication will be written first (this winter/spring) then chum salmon pedigree analysis will begin later this spring
 - Chum salmon baseline paper is complete and written, currently awaiting final review (Bill T.)
 - Pink salmon stock structure for PWS is complete and written, currently awaiting final review (Bill T.)
 - Whole genome pink salmon work partnering with Purdue was written and submitted to the Proceedings of the National Academy of Sciences (PNAS) and rejected with a revise and resubmit recommendation; that is being worked on now
 - Discussion
 - Question was raised of the timeline for chum salmon analysis compared to pink salmon. Kyle S. and Kristen G. affirmed it would be much shorter, for a few reasons:
 - Far fewer samples (most are currently genotyped and through the lab)
 - Bioinformatics pipeline has been optimized
 - Results will not be ready in time for the SE BOF meeting in March 2026.

Public communication of AHRP results and January Decision Points

- Bill T. began the discussion with these statements:
 - At least 2 audiences for AHRP results: local groups (Alaskans, stakeholders) and national groups (AFS etc.)
 - Proposal to create a small group of people who’s purpose it is to work on communication, not unlike the “Tiger Team” approach; maybe a small group working with potential funders as well (within the industry)
 - Or the Science Panel could come up with options to choose from or a plan for moving ahead on these types of communications
- Discussion
 - Support expressed for small focus groups
 - Support expressed for road shows and workshops
 - After AMSS results presented, Kyle S. might get calls, helpful to know where to direct them (point of contact)
 - Explore more ways to provide updates as get closer to full results release (sportfish weekly newsletter for example, bloggers, infographic for pink salmon material etc); help guide the narrative, be true to our narrative; public has been approaching SP members for updates

- Some skepticism expressed about providing too many updates before papers are fully through the peer review process, which the science will hinge on
- Alaska regional planning teams (RPT) that are advisory to the Commissioner on hatchery permits would be interested, as well as the public attendees
- Volunteers interested in smaller group: Julie Decker, Lorna W. recommended approaching Patty Sullivan (new ADF&G communications director), Peter W. Geoff C., Alex W.
 - Katie H. requested to be included in the communications, but not sure if can commit.
 - A quick informal meeting was scheduled by Bill T. to discuss whether any action such a press release should happen during AMSS (last year there was not one)
- Peter W. introduced Nicholas Bird, with RIT
 - Available to assist in analysis, no funding required from January to Mary
 - Example questions such as donor rates versus recipient rates, natural versus wild dispersal rate etc.
- Next Meeting date request was for April, not March, at the earliest