

On May 17th the Klawock Cooperative Association (KCA), through their Sustainable Southeast Partnership community catalyst position facilitated a public meeting regarding sockeye salmon and the efforts toward understanding the decline of the local wild run of sockeye.

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5	Dennis Demmert	Klawock Cooperative Association		summitklawock@gmail.com
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12	Dave Landis	SSRAA		(907) 617-6041(?) davidl@ssraa.org
13	Jeff Lundberg	SSRAA	Klawock Hatchery	
14	Cathy Needham	Kai Environmental		cathy@kaienvironmental.org
15	Millie Schoonover	Shaan Seet Corporation		
16	Harold Thomas	Shaan Seet Corporation		
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26	Al Edsall	Public At Large		
27	Thomas George	Public At Large		
28	Danielle Peele	Public At Large		(321) 295-2495 meetmeonamountaintop@gmail.com

Before the meeting officially began, local resident and fisherman, Thomas George made opening comments regarding the seine fishery, taking an aggressive stance against the fishery primarily in regards to the area 104 fishery. He also discussed a Sockeye Summit meeting that took place in the 1980s (which I have been unable to find any substantial reference to), he stated that the summit closed

the fisheries (subsistence and commercial) for several years to allow salmon populations to improve. He suggested that by doing so they were able to recover declined escapement numbers as low as 350 salmon upward into the thousands over the course of six years.

Mr. George also mentioned that he had observed spawning along the lake bottom near mother-in-law island in Klawock Lake, and that bubbles could be seen coming up from gravelly, shallow areas. He mentioned observing approximately 30-40 fish.

First presentation was preliminary findings of the 2016 predation study undertaken by Quinn Aboudara of the Klawock Cooperative Association. The predation study was a recommendation of the retrospective analysis report prepared by Christine Woll of The Nature Conservancy.

Takeaways of Presentation:

- Historical escapements of 30 thousand down to approximately 6 thousand annually.
- Study was implemented to investigate possibility of fry predation issues
- About 150 potential predators were sampled and stomach contents showed no sign of predation on Sockeye fry
- Results may have been influenced by late start, missing the fry emergence time window

Mr. George mentions that the net pens used by the Klawock Hatchery are towed to half-mile creek and draws in cutthroat trout when coho are being fed. Stated that when coho are released and that such a ready source of food is removed the cutthroat trout return to nearby streams and are very hungry. Mr. George also states that there used to be more fish (sockeye salmon) in half-mile creek.

Millie Schoonover mentions how important sockeye are to the community and how concerned the communities are in regards to the declines.

Dennis Demmert makes a point that the sample size (in regards to the total numbers of predatory fish sampled) is too small to draw a conclusion from. This is followed up by Quinn Aboudara and Cathy Needham that one reason that the sample sizes were so small due to lack of equipment, only having minnow traps at the beginning of the study and therefor were only capable of capturing smaller fish.

Second presentation was an overview of the Retrospective Analysis Report by Christine Woll of The Nature Conservancy.

Mr. George at this time interjects to make comments in regards to the highway fill and expresses concern that it could be a problem because it cut off access to eelgrass beds and comments that the passage way installed allows the local youth an easy area to catch fish passing through it. His general attitude seemed negative toward the restoration project.

Cathy Needham then takes over from Christine and presents her half of the presentation (see her presentation for details).

Dave (TNC?) asks about temperature logging, Cathy states that not much has been done in regards to temperature logging in the streams.

Dave also asks about corroborating Klawock Lake with other local sockeye systems, managers state that there hasn't been any strong corroboration yet, but that the last two years of low returns may tighten that up. (clarify the meaning with Bob)

At this point Dianne Peele (Public at Large) suggests using a program called Terrain Works, Bob Christensen believes that she is meaning NetMap.

Questions from the audience:

- Information on how the hatchery could be responsible for decline in sockeye salmon
 - No clear answer was provided and the question was very vague. It is believed that the question was made primarily in regards to potential predatory habits of coho salmon which are reared at the Klawock Hatchery. Jeff Lundberg discusses some of the efforts taken by the Klawock Hatchery staff to mitigate potential predatory habits. These efforts include moving coho stock to saltwater by June 1st.
- Sheila asked to see the escapement graph compared to enhancement years.
- Sheila asked about lake productivity and whether the system is food limited.
 - Christine stated that she does not know but also said that there was no trend to suggest anything in regards to the system being food limited.

Deborah Hart provides an oral overview of SEAKFHP and what it can do for the community.

Jeff Lundberg provides a brief oral overview of the Klawock Hatchery and introduces SSRAA. He makes the point that the coho stock are moved to saltwater by June 1st and suggest that this reduces the likelihood of predation on sockeye fry by hatchery reared coho. He also makes the point that they pass sockeye and coho to the lake so there isn't an issue of salmon not reaching spawning areas. Lundberg states that this is the last year of early deployment of the fish weirs at the Klawock Hatchery, and that the United States Forest Service wants to keep the fish weirs in place to monitor sockeye.

Questions from the audience:

- There is a large amount of interest from the public in regards to sockeye enhancement being undertaken by the Hatchery and expressed that it should be a priority for the SSRAA hatchery board and Alaska Department of Fish and Game
- Mr. Demmert expressed concern in regards to the impacts of hatcheries on wild fish runs
 - Dave Landis (SSRAA Representative) stated that hatcheries are designed to have low impacts on wild fish runs, though it should be noted that the Klawock Hatchery was designed prior to the "design stipulations"
- Mr. Demmert also expressed concern in regards to the narrowing of the genetic pool of hatchery reared salmon as well as concerns of diseases potentially spreading to wild run salmon.

- Mr. Demmert also expressed concern regarding the lack of local representation on the SSRAA board and its emphasis on commercial interests.
 - This concern is reiterated by Millie Schoonover and Lawrence Armour and the public agrees that they would like to see more public outreach in the local area when SSRAA board seats are available.

Bob Christensen shares what he learned during a visit to Bella Bella in British Columbia last year in regards to Sockeye recovery. Bob describes how Bella Bella observed what he called a “predator pit”, in which the sockeye run declined and the local tribe identified major predators that were not being regulated/managed and the number of predators continued to increase, offsetting the balance between predator and prey relationships. Bob describes that through the management of predators (removing cutthroat trout from the lake prior to fry emergence), as well as habitat restoration the sockeye runs in Bella Bella are improving.

Michael Kampnich of The Nature Conservancy also shares some of the history behind how the meeting originally started about eight years ago. He shared that his observation that there are major habitat issues to be considered still and that salmon enhancement is not a viable solution and should not be the goal, but that it can be a part of the solution. Michael states that restoring the watershed to self-reliance and resilience should be the goal. Examples of habitat impact includes the three-mile creek reach that was impacted by highway construction.

Questions from the audience:

- Bill from SSRAA states that Canada has begun to discourage using enhancement as a rehabilitation tool, when asked by Bob Christensen to elaborate on his statement, Bill said that it was politically incorrect because hatchery fish are considered suspect.
- Sheila also asked if the addition of chum salmon enhancement could raise new challenges, to which Bill stated no, that the hatchery did not feel that was a concern.
- There were concerns raised that hatchery raised coho were returning and spawning in the lake system thus increasing predation pressure.
 - Bill from SSRAA states that this was looked into and it was found that there was little success of hatchery raised coho spawning in the wild and very few wild coho as well.
- Quinn mentions that there were observations of seagulls feeding at stream mouths, and that upon further inspection salmon redds were found disturbed with eggs freely exposed.
- Lawrence says he knows that sockeye enhancement isn't perfect and that the subsistence fishery isn't perfect either, however further collaboration should be considered.
- Mr. Demmert makes that point that Klawock River has also lost its chum salmon run.

The meeting is closed by Millie Schoonover thanking everyone and a reminder that local interests are important to incorporate into future plans.