2022 CORCORAN GRANT REPORT

CONNECTING WITH SALMON

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INTRODUCTION

From July 31 to August 4, 2023, the Land and Environment Department of the Native Village of Eklutna (NVE), Alaska, hosted their annual Culture Camp with several days focused on salmon. The activities of the salmon days were meant to instill an appreciation for the salmon, educate youth on salmon habitat in the aquatic ecosystem and their life cycle, learn identification of adult and juvenile salmon, and learn some traditional harvest and preparation methods from tribal elders. The activities were made possible through a NANFA Gerald C. Corcoran Education Grant and by funding from the Bureau of Indian Affairs Youth Initiative Program and from the US EPA Environmental Indian General Assistance Program.

BACKGROUND

The Native Village of Eklutna is located a short distance north of Anchorage near the Eklutna River and the Knik Arm of the Cook Inlet. The area has been settled for at least 800 years, and the Village was located to take advantage of the once bountiful runs of salmon in the Eklutna River. Unfortunately, the river's hydrology has been disrupted for close to 100 years due to hydroelectric development. The first dam went up in 1929 and cut salmon off from eight miles of river, Eklutna Lake, and its upper tributaries.

Figure 1. Sorting macroinvertebrates.

Photos by the author unless otherwise indicated.

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Figure 2. Some of the bugs that were collected.

Figure 3. Net mending demonstration. (Photo by Jeff Chen)

A second dam was placed at the lake's outlet in 1955 and effectively cut off the Eklutna River from its main water source, thus further diminishing the habitat available for its salmon. Most of the remaining flow comes from one large tributary, Thunderbird Creek, located about 2.5 miles upstream from the river's mouth.

The Eklutna People once thrived on the abundant salmon that the river provided. Stories passed down from elders tell of large runs of Chinook *Oncorhynchus tshawytscha*, Coho *O. kisutch*, and Sockeye *O. nerka* salmon, as well as Chum *O. keta* and Pink *O. gorbuscha* salmon. The Eklutna system still harbors these fish but in much diminished numbers due to the low flow levels and resulting lack of habitat. Salmon are still very important to the culture and lifestyle of the people of Eklutna, but harvest takes place elsewhere. An educational fish net permitted through the Alaska Department of Fish and Game provides some local opportunity, but otherwise families often travel hundreds of miles to participate in meaningful fishing opportunities, as Eklutna River salmon are too scarce to support a fishery.

NVE started hosting a weeklong Culture Camp in 2021. Activities have focused on traditional skills and ecological knowledge of culturally important natural resources, such as edible and medicinal plants and, of course, salmon. In 2023, additional focus was devoted to salmon and the Eklutna River. Topics included salmon habitat needs throughout their lifecycle, juvenile identification, macroinvertebrate identification, traditional salmon harvest methods, and preparation/preservation.

SALMON DAYS

The first of the salmon days began with a 1.5-mile hike from the NVE powwow grounds to the Eklutna River. While battling voracious mosquitoes, participants learned about the history of the hydroelectric development impacts on the river and its salmon, as well as some wildlife track and plant identification along the way. Once arriving at the river, salmon habitat needs in fresh water were discussed including requirements and preferences for both rearing and spawning. Once students had a grasp of the habitat requirements for juveniles, we checked the minnow traps that were set the previous night. Before checking each trap, we discussed the positive and negative features of each site from a salmon rearing perspective. We then transferred the fish from the trap to an aerated bucket for processing. The students were able to see Coho and Sockeye salmon juveniles, as well as Threespine Stickleback *Gasterosteus aculeatus*.

After the minnow traps were checked, we turned our attention to macroinvertebrates. We collected leaf packs that had been placed in the river four weeks prior to allow for colonization. While collecting the packs, we were able to observe Pink Salmon spawning nearby. We also collected a few small cobbles from a riffle to examine for macroinvertebrates. The youth enjoyed picking through the leaf packs and discovering the abundance of life the stream holds. They observed mayflies, stoneflies, caddisflies, leeches, and midges. (Figures 1,2)

After we were finished with the macroinvertebrates, we hiked back to the powwow grounds, where Eklutna President Aaron Leggett spoke about traditional activities, including fishing. He showed photos of Dena'ina fish spears and fish traps which were once used to harvest salmon. Next, a net mending demonstration was presented by one of the Eklutna elders (Figure 3). Participants

Figure 4. Some of the salmon harvest. (Top photo by Jeff Chen)

Figure 5. Cut strips of salmon drying. (Photo by Jeff Chen)

learned the mending process and the proper knots to use while they made a new set net for use in the Educational Fish Net Fishery, a program permitted through the Alaska Department of Fish and Game.

Early the next morning, one of the Village elders set the Educational Fish Net during low tide in the Cook Inlet in Eklutna's designated fishery site. In the early afternoon the net was checked, and the fish were harvested; a nice mix of Coho and Sockeye was captured (Figure 4). An elder taught her method of fish cutting and taught how to brine, smoke, and dry the catch (Figures 5 and 6). The meat was stripped, brined, and smoked along with the backbones, and the heads and eggs were set aside to make a traditional fish-head soup, which was served with lunch the following day. After several days of smoking and drying, the strips and backbones were taken home by participants and donated to elders.

CONCLUSION

NVE's 2023 Culture Camp was a great success, and the salmon activities were extremely well-received. It was our most well-attended Camp to date, averaging approximately 60 participants per day. The youth participants came away with increased knowledge and appreciation for salmon and the cultural significance they have for the Eklutna People. It was a great opportunity to connect both youth with elders and the past to the present. We thank NANFA for awarding the Gerald C. Corcoran Grant funds to help facilitate these educational activities, which will be continued and expanded into the future.

If you would like to learn more about the Eklutna River and the ongoing effort to restore flows to save the salmon, please visit eklutnariver.org, and consider pledging your support and raising awareness to this important effort.

Figure 6. Salmon drying and being smoked. (Photo by Jeff Chen)

(Mussels and Madtoms, continued from page 10)

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