Can Tribal Co-Management of Sitka's Commercial Herring Fishery Protect a Community's Traditional Herring Fishery?

ABSTRACT

In Sitka, Alaska a large annual commercial herring sac roe fishery is immediately followed by the region's large traditional herring egg harvest fishery. The commercial fishery employs purse seine nets and power skiffs to harvest thousands of tons of herring each year. As for the traditional fishery, small open skiffs have replaced wooden tribal canoes but other than that the annual harvest of herring eggs remains largely unchanged for the indigenous people of Southeast Alaska.

Responsible for the resources within a large traditional territory, the Sitka Tribe of Alaska and its citizens has documented a ten-year struggle to attain a co-management role in the annual Sitka Sound sac roe herring fishery. What is the outcome when, practicing collaborative management, the Tribe documents its third subsistence harvest failure in nine years? Official correspondence, meeting minutes, newspaper and radio stories, testimony to and discussion by the Board of Fish, personal affidavits and even the development of an annual post-season subsistence harvest survey are employed as one coastal Alaskan tribal community gambles on the ability of collaborative fishery management to sustain its annual subsistence herring egg harvest.

Tribal elders and harvesters have spent more than a decade purposefully working to protect their traditional herring egg harvest from, and document impact by, the large Sitka Sound annual sac roe fishery. Possessing an oral history which documents an intergenerational memory of herring abundance not only in Sitka but throughout the region of Southeast Alaska, Sitka Tribal citizens and their federally recognized tribal government has spent more than a decade researching past and current impact on the traditional herring egg harvest by commercial harvest activities. Tribal harvesters, elected tribal council members and tribal staff have worked with the Alaska Department of Fish and Game and the Alaska Board of Fish to develop methods to provide for a reasonable opportunity for tribal harvesters whose herring fishery takes place after the execution of the commercial sac roe fishery.

SITKA, ALASKA

The community of Sitka is located on Baranof Island in the Alexander Archipelago, in a region of the large State of Alaska commonly referred to simply as "Southeast." Sitka lies at the heart of the largest temperate rain forest in the world, the Tongass National Forest. Access to Sitka is by air or water only and there are no roads connecting Sitka to other villages or communities. Sitka is 95 air miles southwest of Juneau (Alaska's capitol) and 185 miles northwest of Ketchikan. The City and Borough of Sitka operates five small boat harbors and a seaplane base and our State owned airport provides daily jet service and several scheduled air taxis, air charters and helicopter services are available. The borough encompasses 2,874 square miles of land and 1,937.5 square miles of water. Summer

temperatures range from 48 to 61 and winter temperatures range from about 23 to 35 degrees. Average annual precipitation is 96 inches (including 39 inches of snow).

With a population of approximately 8,600 residents, Sitka is the fifth largest City in the state of Alaska. As a federally recognized tribal government, the Sitka Tribe is charged with the responsibility for the health, safety, welfare and cultural preservation of its citizens. The Sitka Tribe has a tribal enrollment of approximately 4,020 citizens, though not all of the individuals enrolled with the Tribe currently live in Sitka. Tlingit ancestors named the 3200 foot dormant volcano that rises up from Kruzof Island L'úx. In the Tlingit language that geographic place name means "to blink" - like sparks from a fire, though scientists suggest that the volcano last erupted approximately 10,000 years before present. Similarly, ancient geographic place names and traditional stories document the importance of herring and herring eggs to the Tlingit people; the annual harvest of herring eggs is a tradition that dates back to time immemorial for the indigenous Tlingit and Haida people of Southeast Alaska.

The Sitka herring egg exchange is a long standing cultural tradition with herring eggs being traded with residents of the Yukon Territory (Schroeder and Kookesh 1990). Tribal harvesters gather herring eggs on kelp, seaweed and hemlock branches with the majority of the harvest coming from hemlock branches. Using the hemlock boughs as strata for the herring eggs to adhere to, harvesters depend on protected waters in areas where the bottom is not sandy. Once the spawning herring have deposited sufficient eggs on the hemlock trees, harvesters retrieve these trees and their precious bounty of herring eggs which are taken back to Sitka to be shared, traded and bartered widely throughout the community, Southeast, the State of Alaska and even outside of Alaska. Because of the difficulty of traveling long distances in small open boats filled with first trees and then heavy loads of herring deposited on the trees, tribal harvesters rely on the continued productivity in the protected waters of Sitka Sound.

HERRING REDUCTION: 1882-1966

In addition to being a cultural staple to the tribal people of Southeast Alaska, herring and herring eggs have long been a target of commercial fishing in Alaska. Through time, the region of Southeast Alaska has supported large and small commercial fisheries resulting in documented local depletion and discontinuation of spawning activity in numerous locations throughout the region. Herring "reduction," the earliest commercial herring fishery in the region, was inarguably the least regulated and most destructive. The reduction plants processed hundreds of thousands of pounds of herring into oil and meal during this era. The earliest herring reduction factory in Southeast Alaska was opened in 1882 using an old whaling station located at Killisno on Admiralty Island (Huizer 1952). The last reduction plant closed in 1966. Subsequent and existing commercial herring harvests occur in Southeast Alaska for bait, spawn on kelp, and sac roe.

In time, reduction factories operated in three regions of the State of Alaska, Prince William Sound, Kodiak and Southeast Alaska. However, it was not until 1925 that these factories began recording the quantity of fish being processed into meal or oil at these factories (Reid 1971). Reconstruction of the reduction factories catch and production records illustrate that between1929-1956 approximately 812,290 tons of herring were harvested from Southeast Alaska (Skud, Sakuda and Reid 1960). While at least thirty-seven fishing districts were established in the Southeast region, the majority of the fishing occurred in only a few of these districts. Reid (1971) noted: "As an example – between 1939 and 1966, more than 40% of the landings in Southeast Alaska came from the vicinity of southwest Baranof Island (2)." Specifically, Huizer suggests "[t]he Cape Ommaney population long had been the mainstay of the Southeastern District, contributing 80% of the total catch for the [Southeast] district for the 12 year period from 1927 to 1938 (71)."

Tagging surveys designed to document the migration activities of Southeast herring occurred in the 1930's. For the study, internal metal tags were implanted into herring during the spring at locations that included both Sitka and Craig, Alaska; electromagnets at reduction factories were used to recover the tags. Analysis of the 4,883 recovered tags show limited co-mingling between the Sitka or "Cape" and Craig or "Non-Cape" area herring while illustrating that the majority of the herring processed at the herring reduction factories were taken from the summer feeding grounds located at the southern tip of Baranof Island which were Sitka spring spawners (Skud 1963).

Subsequent studies support this "Cape" and "non-Cape" area distinction. In the 1960's radioactive body cavity tags were implanted into 7,000 herring. Tags recovered at the summer fisheries at Larch Bay at the southern tip of Baranof Island and off the southern tip of Admiralty Island in Chatham Strait had been implanted on the spawning grounds at Craig and Sitka (Carlson 1977). The reason for the 1960's tagging research was "the contention of salmon trollers that local herring populations have been seriously depleted by the commercial reduction [herring] fishery" with the other two research directives being changes in the fishing areas and developments in the North Pacific Treaty regarding herring (Skud 1963:19).

The concern voiced by salmon trollers is captured in this "official protest" lodged by the Sitka Chamber of Commerce in 1954:

The Sitka Chamber of Commerce is hereby lodging an official protest against the commercial herring fishing in this area for reduction purposes.

We join our voice with the Northern Fishing Vessel Owners Association and all other commercial salmon fishermen in Southeast Alaska in this protest.

Perhaps you are not aware of the damage to the salmon industry that is being done with the depletion and destruction [sic] of the herring the salmon's natural food.

To our knowledge there are only two small areas in Southeast Alaska where there are still a few herring. One is near Ketchikan and the other is on the west coast of Kruzof Island, just outside of Sitka Sound. This Kruzof area only covers approximately 12 square miles.

To date, of this season, the herring seiners have only taken 15,000 barrels and have moved into the Shelikof Bar area on the west side of Kruzof Island with the intention of taking the remaining 35,000 barrels of their allotment.

Last year the same thing happened, with the result that the salmon industry in this area was a complete failure. There had been a good showing of salmon up to the day the herring seiners moved in and took the feed from them, but from that date, there were very few salmon in the entire area. Consequently, the Sitka Chamber of Commerce and the City Government had to appeal to the Federal Government for food relief for our fishermen. (July 3, 1954).

Less than a week later, the Sitka Chamber of Commerce drafted another letter, dated July 9, 1954, requesting "the prohibition of herring seining for reduction purposes within the three mile limit in Southeast Alaska." This letter also notes the herring seine fleet had removed 35,000 barrels of herring from Shelikof Bay located at Kruzof Island in Sitka Sound, contending that this harvest "[c]ompletely wiping out the herring in the entire Sitka area." The letter goes on to assert that the Chamber understood that "the Herring seiners and reduction operators are sending a delegate to Washington to try, in person, to obtain the extension to their allotment of 50,000 barrels" intending to use the

argument that they had caught so much herring at Shelikof Bay in such a short period of time thus attesting to the abundance of herring in the area which the Chamber stated, "is absolutely unfounded on fact."

A subsequent letter indicates further concern regarding the commercial harvest of herring from Sitka Sound. On July 20,1954 the Area Director of Alaska Native Services (Bureau of Indian Affairs) wrote to the Director of the United States Fish and Wildlife Service citing similar concerns while also noting that the area's indigenous people relied upon herring for food: "Herring, as you know, serve as feed for a variety of fish that are taken for commercial purposes. Furthermore, our native people use it for food. Over-fishing of herring can have a detrimental effect on the economy of the fishermen, and may become quite serious." This letter went on to request a "careful study" of the "herring situation at Sitka." The final herring Alaskan reduction factory closed in 1966 (Reid 1971).

COMMERICAL SPAWN ON KELP FISHERY: 1964-1968

A commercial spawn on kelp fishery began in Sitka in 1964 and was closed by the State of Alaska's Board of Fish in 1974. During this period, there were five years that this fishery was executed (Ad Hoc Committee on Herring Spawn on Kelp Statements of Findings, N.D.) At its inception, 15 persons applied for permits to harvest herring on kelp. The number of active Sitka Sound roe on kelp harvesters expanding to 850 permits (of the 1,517 attained) being fished by 1967 when approximately 163,500 pounds of product was harvested.

In 1967 the spawn on kelp fishery in Sitka lasted only forty-five minutes during which 850 harvesters collected 81 tons of product from 425 skiffs (Garza 1996). In 1968 there were 1,736 permits roe on kelp harvest permits issued; two hundred of these were fished and 71,669 pounds of product was harvested (Management Plan – Southeast Alaska Herring Roe Fishery 1988, Alaska Department of Fish and Game Southeastern Region). Sitka's commercial spawn on kelp fishery was not opened in Sitka Sound by the State of Alaska in 1968 and remained inactive until it was officially closed by the Board of Fish. However, a small sac roe fishery was initiated during this time period. Dolly Garza noting in her 1996 doctorial dissertation that the sac roe fishery in Sitka Sound began through the shipping of a "considerable" amount of frozen herring caught through the bait fishery that was shipped to Japan (39-40) in 1969.

SITKA SOUND SAC ROE FISHERY:

A sac roe fishery was officially instituted by the Board of Fish for Sitka Sound in 1976 through its incorporation of a management plan. A limited entry system was employed to issue 52 commercial permits, most to individuals outside of the community and in fact outside of the region and the state of Alaska (CITE). The Fish and Game instituted a threshold for the sac roe fishery of 7,500 in the 1970's. Simply, the threshold was a mechanism to protect the herring biomass being managed by the state as a stock. Until the threshold was reached a commercial fishery could not be opened and in the case of Sitka Sound, the fishery opened at 10% and a sliding scale elevated the percentage allowed for harvest above the threshold until it reached 20% at 45,000 tons of herring biomass. James Parker, the Sitka area fisheries biologist for twenty years provided the following information in an affidavit filed with the Sitka Tribe of Alaska:

The minimum spawning biomass threshold used in managing the herring sac-roe fishery and to which the harvest quota is directly linked is not based on biological considerations. I was personally involved in setting the minimum threshold level, and we were just trying to set a base level where no fishing would occur if the population dropped below that level. However, there were no biological or scientific reasons for this determination ...

When a herring population gets below a certain level, the natural inhibiting factors tend to hold the population down, or even deplete further. In areas around Juneau, Petersburg, Wrangell and Ketchikan there was really good populations of herring that have gone below this healthy level, and they have been held down, and do not have the opportunity to bloom when conditions are good. I personally witnessed this phenomenon in Juneau, where I helped manage the fishery for a number of years. They had an extremely good population of herring, but it declined down to a level where it cannot bloom, and that was 25-30 years ago. When they go down, they down for a long time. Juneau hit their fishery so hard, they have had 25 years of practically no fishery (1996).

By 1996, the State of Alaska believed its management of the Sitka Sound sac roe fishery had paid off and the Sitka Sound herring stock had rebounded. Reviewing ADF&G's records over time, 1995 showed the lowest recorded miles of spawn since 1978. In 1995 commercial herring quota was set at 2,609 tons. In 1996 the commercial herring quota was set at 8,144 tons. However, in the winter of 1995 and spring of 1996, the Sitka Tribe and its tribal elders were intent on entering into a discussion with the Alaska Department of Fish and Game regarding protecting the subsistence harvest that would follow the season's annual commercial sac roe fishery.

.

The Fish and Game has been denying that they are depleting the herring. My feeling is that if they keep on pretending and keep on increasing and keep taking as much as they can possibly take, with the idea that they are not endangering the species, they'll probably eliminate herring. I think that if they continue to keep on increasing their take, the same thing that happened to the Southern California sardine fishery might take place with herring (Affidavit, Mark Jacobs, Jr. 1996.)

These concerns were largely redirected by the Alaska Department of Fish and Game who was eager instead to enter into discussions regarding its new Age Structured Analysis biomass and annual quota modeling program.

SITKA TRIBE REQUESTS SAC ROE FISHING MORETORIUM (1996)

The Sitka tribal citizens and staff held several planning meetings prior to the commercial or subsistence fisheries taking place in 1996. The previous year (1995), a "branch watch" program had been put into place to try to protect subsistence harvesters' branches while they soaked in the intertidal waters. During the course of the discussions and subsequently through direction from the Council, Sitka Tribal staff were directed to prepare a motion naming the State of Alaska's Department of Fish and Game as Defendants for a preliminary injunction asking the State's Superior Court to prevent the Sitka Sound Sac Roe Fishery from opening prior to the threshold being raised from 7,500 to 15,000 tons of herring. The commercial fishery opened on March 23, prior to the injunction being filed. Following the initial 4,300 tons on March 23, 1996 the local newspaper reported nearly nightly on the fishery's slow progress.²

_

^{1 (}ADF&G unpublished miles of spawn maps 1975-2001 – not cited in bibliography, looking for a published citation to source).

² Daily Sitka Sentinel articles for the 1996 commercial herring season are found at STA herring archives STA/HRN/57-STA/HRN65.

The April 5th newspaper carried reports of a letter dated April 3, being sent by the chairman of the Sitka Tribe of Alaska to the Area Manager of Commercial Fisheries citing: "Tribal Elders and subsistence harvesters have repeatedly testified that the geographical areas of herring spawn are shrinking with every year, the duration of the spawn is getting shorter, and the volume of spawn is diminishing. Tribal oral history states with certainty that the present level of herring biomass and spawn is much less than the historical level that once bloomed in the Sitka area." The letter went on to state: "as the Tribe tracks this year's commercial harvest efforts, it has become apparent that the models and assumptions made by your Department were grossly mistaken. It is reported daily that the herring population is not yielding enough commercial quality herring for sac roe processing. Yet, the Department is continuing the commercial fishery and expanding its reach . . ."

The letter's formal request: "The Sitka Tribe officially asks you to exercise your authority in compliance with the Sustained Yield Clause of the Alaska Constitution and AS 16.05.258, and shut down the commercial herring sac roe harvest in Sitka" was announced in the local Sitka Sentinel newspaper. The local area management biologist responded in this way: "The thickness of the spawn indicates a large volume of herring so we're not over-harvesting as STA claims" and "I don't think keeping the fishery open for a couple more days will cause damage to the resource." The paper went on to note: "For the past week the seine fleet has been allowed to catch any commercial-quality sac roe herring that can be located in the Sound, but the only catch since Sunday occurred Thursday when 9 tons were landed. That still leaves 3,401 tons remaining to be harvested . . ."

On Monday April 8, 1996 the Sitka Sentinel reported: "Fishing at night dramatically improved the fortunes of the Sitka Sound sac roe herring seine fleet over the weekend. With the blessing of the Alaska Department of Fish and Game, the permit holders fished all night, netting schools that were too deep to catch during the day." In the end, the quota was reached using a technique previously employed by the reduction era fishery – night fishing with lights to draw fish to the surface. Subsequently, the Area Manager responded to the Sitka Tribe's letter with a letter dated April 30 that suggested that the "department is willing to meet with the Tribe to hear directly of your concerns, to further explain our management programs, to review the current laws and regulations we operate under and to review the stock status of the Sitka herring population."

The letter went on to suggest that such a meeting would encourage better communication and requesting: "If you are amenable to such a meeting, please suggest a meeting time and place. In addition, please let me know in advance if you intend to have legal counsel present. If so we will likely request that a representative of the State Attorney General's office be present at the meeting." This meeting was held in June of 1996 with approximately 36 individuals in attendance and no resolution reached.

Later, in a letter from the Alaska Department of Fish and Game's Area Biologist for Sitka (Bill Davidson) dated October 17, 1996, addressed to the US Fish and Wildlife Service and written in response to report by a Sitka Tribal citizen "reported to have brought up concerns of Sitka area subsistence users concerning decline in abundance and distribution of herring spawn" brought up at a Southeast Subsistence Regional Advisory Council meeting on September 25, 1996 in Kake, Alaska, it is noted:

With all due respect to . . . and the Sitka Tribe of Alaska, the department would not agree with the conclusion that the herring stock is in a state of decline. Also, department records from subsistence herring spawn-on-kelp permits indicate that 1996 harvest levels are the third

highest since 1979. Additionally a successful spawn-on-branch harvest program was conducted with STA . . . ³

While gathering numerous affidavits, including one from the previous area biologist (James Parker) the Sitka Tribe elected not to pursue court action but to exhaust its administrative remedies by focusing on the upcoming Board of Fish meeting which would be held in Sitka in the spring of 1996.

BOARD OF FISH – INCREASED THRESHOLD (1997)

It is important to note that the jump in 1996 from 2,748 pounds of roe on kelp reported by subsistence harvesters in 1995 to 6,057 pounds reported in 1996 does not necessarily indicate that 1996 was a particularly good year for subsistence harvesters seeking to harvest roe on hemlock. That is, often herring egg harvesters will supplement their needs by harvesting roe on kelp more heavily due to the fact that it grows in areas outside of the traditional roe on branch subsistence fishing areas. However, there is at this time no way to know for certain, as there was at that time no real way to know for certain what the permit returns for spawn on kelp that lingered on from the 1960's days were actually reporting to the State of Alaska.

In the state of Alaska, a 9-member governor appointed board reviews fishery proposals regarding the fish in waters that are managed by the State. Proposals are submitted and reviewed in 3-year cycles. And allocative or regulatory changes to State managed fisheries required that the matter be formally brought before the Board either through the regular cycle or through a strict emergency agenda change request process. In 1996, the Sitka Tribe elected to submit a proposal requesting the Board to raise the threshold for the commercial fishery proposing better "low end" protections would protect both the sustainability of the commercial and the subsistence fisheries.

The herring reduction fishery and related tagging study data proved significant to the Sitka Tribe in 1996 and 1997 during the effort to increase its ability to back up its elders' testimony to the Board of Fish that the herring stocks remained depressed from these historic fishing activities as well as the Tribe and its citizens' efforts to increase the commercial harvest threshold for the Sitka Sound sac roe fishery. Accessing, utilizing and in a way returning these historic data to a discussion about Sitka Sound's commercial herring fishery provided support for Sitka's tribal Elders who routinely provided reports to the Tribe and the State regarding the effects of past and continued commercial fishing pressure at Sitka Sound.

However, during the subsequent Board of Fish meetings held in Sitka in January 1997 where the Tribe's proposal for a fishery moratorium and to raise the commercial fishery's harvest threshold commercial dismissed as anecdotal, the tagging study's number provided pause. The use of these numbers by the Tribe in a discussions with resource managers and with the Board of Fish, both cultures that rely upon a common language of numbers rather then emotional appeals, provided the Tribe with an opportunity to effect the management of the Sitka Sound sac roe fishery. The Tribe requested a doubling of the existing quota from 7,500 to 15,000 tons. The Board directed Fish and Game to implement a sliding scale that allows only a 10% harvest rate at a 20,000 returning biomass that gradually increases to a 20% harvest rate at the 40,000 biomass level.

³ Interestingly, due in large part to the annual post-subsistence harvest survey conducted in Sitka by the Sitka Tribe (2002-2009) a correlation is being drawn over time that years of high spawn on kelp harvest correspond with years of poor spawn on branch harvest. It would appear that a strategy employed by harvesters is to more aggressively harvest spawn on kelp which can be accessed in areas which are poor for branches but where spawn on kelp can be harvested.

Also at this meeting an experimental herring roe on kelp fishery was established with a sunset clause set for 2000. The experimental fishery was conducted with the participation of a tribal liaison/harvester.

BOARD OF FISH - ECOSTYSTEM BASED MANAGEMENT AND OPEN POUNDS (2000)

For the next cycle of proposals the Tribe submitted a proposal asking for an "ecosystem" management approach to the fishery. Quite simply Sitka Tribal citizens repeatedly brought for the their concerns regarding a fishery that harvested large quantities of fish seeking only the egg sacs from the females. Elder Mark Jacobs Jr. would often comment that this practice would be like hunting deer and then only taking from the deer its liver [find quote]. Reviewing definitions for ecosystem management, several common themes are important to the often quoted and rarely implemented practice of ecosystem based resource management:

Ecosystem management must include the following: 1. Long-term sustainability as fundamental value, 2. clear, operational goals, 3. sound ecological models and understanding, 4. understanding complexity and interconnectedness, 5. recognition of the dynamic character of ecosystems, 6. attention to context and scale, 7 acknowledgement of humans as ecosystem components, and 8. commitment to adaptability and accountability. (Carpenter, Brock and Hanson 1999: 5)

It was the Sitka Tribe of Alaska's assertion that the State of Alaska's age structured analysis herring biomass forecasting tool could not adequately model for either the impact to the environment or the herring biomass using a computerized single species forecasting model. Without this approach being built into the fishery's management, the Tribe suggested, the only other way to address the situation was a commercial fishing moratorium. No action was taken on the Sitka Tribe of Alaska's proposals before the Board in Juneau in 2000.

At the Board's meeting that same year held a month later in Sitka there was significant discussion regarding a commercial spawn on kelp fishery. An experimental commercial herring roe on kelp program had been established by the Board in 1997 and was set to be taken up again in 2000 and if it was not moved forward at that time the experiment would sunset. The Tribe worked to support the option however could not arrive at consensus with the commercial permit holders about the potential for conflicts between the large floating pounds from which the kelp would hang and the anchoring of hemlock branches in the same areas.⁴

SUBSISTENCE HARVEST FAILURE (2001)

In 2001 the quota for the Sitka Sound sac roe fishery was set at 10,600 tons. The Alaska Department of Fish and Game (ADF&G) directed the commercial fleet to harvest the entire quota from a 4-mile area located approximately 6 miles from the Sitka Indian Village and downtown Sitka, Alaska. The final commercial harvest was 12,005 tons. Due to the fact that the failure occurred "out of cycle" the Tribe submitted an "agenda change request" to the Board of Fish. In 2001, on a vote of 4 to 5 Board members, the Board elected to take up the proposal at its January 2002 meeting.

The Tribe worked from the noted in-season subsistence harvest failure through to the Board's early 2002 meeting to document the hardship in the form of affidavits, surveys, personal statements, letters, meeting minutes and maps and these data were presented to the Board by eight active tribal harvesters, Sitka Tribal Council members and tribal staff at a Board of Fish meeting held in Anchorage

⁴ Materials related to this experimental fishery are found in the STA herring archives at STA/KLP/23.

in January 2002.⁵ Board member Dan Coffey, summarizing the Board's deliberation on the Sitka Tribe of Alaska's proposal before the Board asking for a "reasonable opportunity" to harvest subsistence herring eggs, provided the following during Board testimony:

This is a hard one for me, part of what we are trying to do here is recognize the subsistence priority. Part of what we're trying to do here is provide a seat at the table for people. There is, in my judgment, has been a divergence between what is predominately our Native population and the people who predominantly regulate and manage our fisheries and somewhere, somehow, we need to sort of bridge those divides that are there, that exist among us and results in, you know, lack of trust and suspicion of motives and so on. We didn't see any of that in committee, commercial folks and the subsistence folks were considerate, cordial, attentive – all the good things you like when you work with a group of people and my thought was that, to the degree that we provide assurances to the subsistence users that they are in the game, at the table, have tier voices heard, listened to appropriately at the same level in the same way in which we have done with commercial fishers and processors and, please, don't get me wrong, I do not think the department at all in any time in Sitka has excluded people. They have worked with folks that are there and attentive and it's been good for that purpose and that reason. I mean obviously you're going to talk to your processors about the quality of your product before you turn the fleet loose you, you don't want to create a product that can't be marketed ... I think that this State missed a big opportunity thirty years ago, forty years ago when we started to involve our local people in the co-management of fisheries we, we missed a lot of traditional knowledge and experience and that's too late to do anything about that and know we're sort of reaping what we sow. We didn't bring our rural people, our Native people into this process to any degree except to, as they were commercial fishers. And now, and now we have the feds in our backyard treading everywhere. I wouldn't even give it the level of treading there, stomping around ... one of the reasons I am going to support proposal 500 [the Sitka Tribe's proposal] is because I want it known far and wide that the Board of Fisheries deals with the people who live in Alaska fairly and equitably and with consideration for all users within the bounds of subsistence priority (January 13, 2002).

The outcome of the Board's 2002 work with the Sitka Tribe, tribal harvesters, commercial permit holders and the Department the Board saw fit to provide ADF&G with regulations to further interpret the "reasonable opportunity" for subsistence harvesters protected by Alaska Statute: "distribute the commercial harvest by fishing time and are if the department determines that it is necessary to ensure that subsistence users have a reasonable opportunity to harvest the amount of herring spawn necessary for subsistence uses." 5AAC27.195(a)(2). This regulation does not define the term "distribute" but clearly directs ADF&G to: "consider the quality and quantity of herring spawn on branches, kelp and seaweed, and herring sac roe when making management decisions." 5AAC27.195(a)(2).

These regulations adopted by the State of Alaska do require ADF&G to weigh the success of the commercial harvest against the potential impact from their decisions on the subsequent subsistence fishery in "real time" instead of every three years according to the Board of Fish proposal cycle. Furthermore, as required by law, the State set the amount of herring eggs reasonably necessary to meet subsistence needs of Sitka Sound's subsistence herring egg harvesters. AS16.05.258(b). Thus, the Board set the amount reasonably necessary based on previous survey data collected using random survey methods, arriving at a range of 105,000 to 158,000 pounds of herring spawn harvested annually

9

_

⁵ Predominantly found at STA herring archives STA/HRN51-STA/HRN85.

⁶ Found at STA herring archive STA/BOF106.

for subsistence uses. 5AAC01.716(b). In this way, the Board saw fit to provide ADF&G and subsistence harvesters with a method to determine the success of ADF&G's distribution activities.

The Board also requested that a Memorandum of Agreement between the State and the Tribe be created to which the Board's chair, the Sitka Tribe and the Commissioner of ADF&G would be signatories.

MEMORANDUM OF AGREEMENT BETWEEN THE TRIBE AND STATE (2002)

The Sitka Tribe of Alaska and ADF&G entered into a Memorandum of Agreement (MOA) on November 4, 2002. The MOA was signed by the Chairman of the Board, Commissioner of ADF&G and the Chairman of the Sitka Tribe as per the Board's direction. Specifically, the State and the Tribe agreed to coordinate collaborative responsibilities that include: (1) participation in the pre-season stakeholder meeting and post-season meetings, (2) communication regarding each commercial opening, and, (3) conducting a collaborative post-season subsistence harvest survey.

Essentially, the MOA is an agreement to collaborate, communicate, collect and share data. This document differs from the Sitka Tribe of Alaska's Memorandum of Understandings (commonly referred to as MOU's) between itself and the City and Borough of Sitka, National Park Service and the United States Forest Service by way of being more specific in the level of collaboration and communication. Additionally, while agreements between boroughs and tribes and between the federal government and tribes are rare and hard fought, specific signed agreements between tribes and the State of Alaska are rarely mentioned and very few exist. The Millennium Agreement singed by Tony Knowles was designed in part to be a blanket agreement between the State and tribal governments but to date very little envisioned in the document has come to pass. And, since changes in the State's administration, the Millennium Agreement is rarely, if ever, mentioned.

POST SEASON SUBISTENCE HARVEST SURVEY (2003-2005)

In 2002 the amount reasonably necessary for subsistence herring eggs from Sitka Sound was set using ADF&G expanded random survey data (1996) and during its deliberations, the Board determined the most reliable method to attain annual harvest date was an annual post-season survey. However, the Tribe argued that subsistence permit return data is intrinsically flawed because individuals consistently underreport. Additionally, for a subsistence harvest such as herring eggs, random surveys further water-down the reliability of resulting harvest data because they do not capture all "high harvesters" thus producing significantly low harvest estimates for activities such as herring egg harvest. It can be assumed, therefore, that the amount reasonably necessary for subsistence set into regulation is much lower than the amount of herring eggs actually needed for subsistence.

Thus, the Division of Subsistence and the Tribe elected to implement an annual "census" survey of the community's harvesters, especially the acknowledged high harvesters who, as a small population, harvest the vast majority of the annual harvest. Therefore, the MOA states:

- (1) The Tribe will collaborate with ADF&G in 2002 to create and conduct an annual customary and traditional [subsistence] harvest-monitoring program based on post-season surveys and interviews with local harvesters;
- (2) The annual harvest-monitoring program will follow standard survey sampling methodology;
- (3) The Tribe and ADF&G will collaboratively conduct the harvest interviews. The Tribe and ADF&G will collaboratively maintain the survey data, including a confidential list of participants and their contact information; and,
- (4) The Tribe will provide ADF&G with harvest data each year and this raw data will be analyzed by ADF&G using standard statistical techniques. [Section III (A) 1-4]

The survey has developed very well. Harvesters appear to welcome the ability to report to their own tribe regarding the quantity and the quality of their annual harvest of herring eggs. The survey providing the harvester with a tribal representative who listens and documents both the poundage and the harvest experience allows each participating tribal citizen to have their voice heard and their harvest expectation plotted against their annual harvest result. In 2002, the first year of the survey, the Tribe interviewed 86 individuals and it was estimated that the total subsistence harvest was 111,962 pounds.

By 2003, as the Tribe worked to expand the survey list to include more harvesters, the total pounds estimated to have been harvested was 209,995 pounds. By 2004, the Tribe was working largely on its own to conduct and to review the survey due to budget cuts experienced by the Division of Subsistence and that year the total pounds of herring eggs harvested was documented at 293,579 pounds. Then 2005 occurred. In 2005 the Sitka Tribe surveyed 161 individuals, the largest number of individuals surveyed up until that time, and the total number of pounds of herring eggs harvested was 73,432 pounds. This is well below the 105,000-158,000 pounds set as "amount reasonably necessary" for subsistence set into regulation by the Board previously. In 2005, the commercial fishery harvested 11,366 tons of herring in six openings in an area of Sitka Sound that is most important to the subsistence fishery. The situation was nearly identical to the situation that occurred in 2001.

BOARD OF FISH – LIMITING COMMERICAL FISHING IN SUBSISTENCE ZONE (2006)

Following the 2005 commercial fishery and the subsequent poor subsistence fishery, a Sitka Tribal Citizen filed a proposal to the State of Alaska's Board of Fish. The Tribe was determined to both support its citizens while not losing its level of increased interaction with the process. After significant analysis and discussion, the Sitka Tribe of Alaska elected to support this proposal and sent representation to this meeting in Ketchikan. However, a priority was placed on working with the Board, Department and permit holders to remain engaged in the annual collaborative process. At this meeting, the Board determined that it was not the responsibility of the Department to ensure that the amount reasonably necessary was met.

While regulation requires the Alaska Department of Fish & Game to "distribute the commercial harvest by fishing time and area if the department [ADF&G] determines that is necessary to ensure that subsistence users have a reasonable opportunity to harvest the amount of herring spawn necessary for subsistence uses" ADF&G did not distribute the commercial fishery in 2005. A difficulty with the inseason consultation process was that the single point of contact for the Sitka Tribe of Alaska did, in consultation with some tribal harvesters, respond to communication initiated by ADF&G prior to commercial openings, agreeing to the openings. However, the single point of contact was assured by ADF&G that: (1) the commercial harvest will not impact subsistence; and, (2) there is no other opportunity for the commercial harvest elsewhere.

Thus, in 2005 the Sitka Tribe of Alaska and its tribal citizens began yet another phase of their effort when the community documented a subsistence harvest failure that mirrored the 2001 harvest failure. At this juncture the Sitka Tribe of Alaska and its tribal harvesters were faced with the need to impress upon the State of Alaska's Board of Fish and Department of Fish and Game that (1) recognizing and actually (2) protecting the "reasonable" opportunity to harvest herring eggs for traditional purposes were in fact two different, though legally linked, activities. Recognizing the importance of a way of life is highly significant. But ensuring that a style of life or a cultural practice is allowed to continue is in fact applying significance to the recognition of that lifestyle's intrinsic value.

 $^{^{7}}$ Check against ADF&G figures, STA's and ADF&G's estimates often vary.

- (1) The success of the annual post-season subsistence herring egg survey illustrates the community's growing desire to generate and control the best data available.
- (2) While understandably concerned about being locked into a "numbers game" the evolution of a common method of establishing, substantiating and reviewing whether needs have been met has provided a common language to engage in collaborative post-season review.
- (3) The 2005 documented subsistence harvest failure did lead to some collaborative management developments.
 - (A) The Division of Subsistence's annual survey operating budget has been funded to allow for their 2006 involvement in the annual post-season subsistence harvest survey.
 - o Resumed funding was a result of the Sitka Tribe bringing forward not only their reports of concern but by having the data to substantiate these concerns.
 - (B) Upon detailed review of the situation, it may have resulted from the fact that ADF&G estimated that perhaps 40-50% of the total biomass returning to an area that is virtually impossible for subsistence harvesters due to the tidal surge and an area that presents commercial harvest limitations due to the area's rocky bottom conditions.
 - o Having this detailed level of post-season review was difficult for everyone involved.
 - o Failing to enter into this discussion would have been an example of failing to learn from the 2005 season and as such a step backwards in the collaborative management process.

The Board of Fish elected to deny action on the proposal put forth by a Sitka Tribal citizen which was supported by the Tribe. However, prior to the 2006 commercial tribal harvesters held the first of what will be an annual tribal/permit holders dinner meeting. A story covering the dinner with excerpts of the discussion at the meeting was playing over a public radio story as I drove to the airport to fly to this meeting. And both the commercial permit holders and the tribal harvesters were suggesting ways that they could work together to ensure the success of both fisheries in 2006 and into the future. This interaction with the permit holders themselves truly presents an evolution in the ongoing effort to engage in collaborative management of the Sitka Sound Commercial and Subsistence Fisheries.

SUBSISTENCE FAILURE 2008 AND BOARD INACTION IN 2009

Again in 2008 the Sitka Tribe of Alaska documented a subsistence failure. Additionally, communication between the Tribe and ADF&G and the Tribe and the commercial permit holders appears to have suffered, perhaps coinciding with the transfer of management responsibility within ADF&G. While the Tribe continues to hold its annual pre-season herring dinner it is not so much to engage in conversation with the permit holders as it is a time for the tribal community to assemble. In 2009 the Tribe did hold the dinner in conjunction with the upcoming Board of Fish meeting and in attendance were regional tribal representation from Sealaska Corporation and the Alaska Federation of Natives.

Work Cited

Ad Hoc Committee Herring Spawn on Kelp Statement of Findings. Committee established in Sitka by the City and Borough Assembly in 1988. Statement of Findings N.D.

Alaska Native Service. July 20, 1954. Letter addressed to John L. Farley, Director of Fish and Wildlife Service. Washington, D.C.

Carlson, H. Richard. 1977. Results of a Tagging Study of Pacific Herring in Southeastern Alaska in 1960-62 Using Radioactive Body Cavity Tags. Unpublished report. United States Department of Commerce. Seattle, Washington.

Chamber of Commerce. July 3, 1954. Hand written on the letter is the date and that it was mailed to "Farley and McKay."

Chamber of Commerce. July 9, 1954. Date is hand written on the letter and who it was sent to is not indicated.

Cockerman, Sean. STA Seeks Closure of Herring Fishery. The Daily Sitka Sentinel. Volume 58, No. 7. Weekend Edition, Friday, April 5, 1996.

Cockerman, Sean. Sitka Sound Herring Harvest Picks Up. The Daily Sitka Sentinel. Volume 58, No. 68. Monday, April 8, 1996.

Davidson, Bill. Letter to Mr. William C. Thomas, Chair and Mr. Greg Boss, US Fish and Wildlife Service with courtesy copy addressed to Scott Marshal and Gary Sanders, ADF&G and Wade Martin, STA subsistence program. October 17, 1996.

Garza, Dolly. The Southeast Alaska Herring Sac-Roe Fishery: Need for Change? Doctoral dissertation submitted to the University of Delaware. 1996.

Huizer, E. J. 1952. History of Alaska Herring Fishery. Pages 65-76 IN Alaska Department of Fish, Annual Report. Juneau, Alaska.

Parker, James. Affidavit of James Parker. Sitka Tribe of Alaska Plaintiffs, vs. State of Alaska. Document never filed with the State of Alaska. July 24, 1996.

Jacobs, Mark, Jr. Affidavit of Mark Jacobs, Jr. Sitka Tribe of Alaska Plaintiffs, vs. State of Alaska. Document never filed with the State of Alaska. July 24, 1996.

Reid, Gerald M. 1971. Age Composition, Weight, Length, and Sex of Herring, Clupea pallasii, Used for Reduction in Alaska, 1929-1966. NOAA Technical Report. Seattle, Washington.

Schroeder, Robert F., and Matthew Kookesh. 1990. The Subsistence Harvest of Herring Eggs in Sitka Sound, 1989. Division of Subsistence, Alaska Department of Fish and Game. Juneau, Alaska.

Skud, Bernard E. 1963. Herring tagging experiments in Southeastern Alaska. United States Fishery Service Fishery Bulletin. 63:19-32.

Skud, Bernard E., Henry M. Sakuda and Gerald M. Reid. 1960. Statistics of the Alaska Herring Fishery 1978-1956. Fish and Wildlife Service Statistical Digest 48. Washington, DC.