
*Notes from the Field***Yup'it Subsistence in Western Alaska: The Intersection of Formal and Local Institutions**

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Anthropologists have long studied the subsistence economies of indigenous peoples of Alaska. These studies have documented in great detail the importance of subsistence foods in the diet and culture of Alaska Natives. In more recent years, anthropologists have begun to investigate how formal rules used by state and federal agencies conflict with local norms, customs, and values as practiced by Alaska Natives. We call these latter rules "local institutions." This paper traces the historical development of formal rules for subsistence harvesting and discusses current controversies using case study fieldwork from indigenous communities in the Yukon-Kuskokwim Delta region of western Alaska. We confirm that tensions exist between formal regulations and local institutions but add that these tensions also lead to conflict between communities over subsistence resources.

Keywords: Local institutions; Indigenous peoples; Alaska

Introduction

For millennia, subsistence resources have provided Alaska's indigenous peoples with food, clothing, and tools. Salmon, marine mammals, caribou, moose, and wild berries have been the key elements of cultural survival in a harsh environment for at least 2,400 years and possibly much, much longer. They are also the foundation for cultural identity and spiritual renewal among Yup'ik Native Alaskans of the Yukon-Kuskokwim River Delta region (Y-K Delta) in western Alaska (see Figure 1). Just as local fish, game, and plants sustain rural communities in remote villages, they also fuel intense political controversies between Native and non-Native interests (Thornton 2001). Anthropologists have played an important role in documenting subsistence livelihoods and advocating for Native subsistence rights (Wheeler and Thornton 2005). They have also documented how formal regulations promoted by state or federal agencies conflict with local indigenous value systems (Thornton 1998; Wolfe 2006). In his book *Sacred Ecology*, Fikret Berkes identified ways in which these antagonisms can be overcome by incorporating local understandings of resource dynamics, or traditional ecological knowledge (TEK), into management practices (1999). Anthropologists such as Paul Nadasdy have critiqued this use of TEK and argue it ultimately perpetuates unequal relations of power between indigenous peoples and the state (2003). This article explores the historical development

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of subsistence resource regulations in Alaska and discusses current conflicts observed from a case study among Yup'ik and Cup'ik villages in the Y-K Delta. Like other scholars, we identify tensions between Native and non-Native groups but add that these tensions also lead to conflicts between indigenous communities.

The Y-K Delta is rich in subsistence resources, which explains the cultural persistence of indigenous groups. The area is, however, poor in terms of formal employment. There are few jobs except those provided by village schools and administrative offices. Cash is critical for a subsistence way of life because people need it to purchase gas and equipment to go out on the land. Gasoline can cost \$8.00 per gallon and this restricts the range and frequency of hunting and fishing trips. Subsistence activities are also shaped by the geography of the Y-K Delta. Coastal communities rely more heavily on marine resources such as seals and herring while inland villages depend mostly on salmon and moose. There is customary barter and exchange among villages as those near the coast trade seal oil for dried salmon with interior villages. Seasonality also plays a role as certain fish and game are available only at specific times of year due to migration patterns. Thus, there is a seasonal calendar for hunting, fishing, and gathering. If a village is unable to catch enough salmon during the summer when these anadromous fish travel upstream to spawn, it makes up for this deficit by harvesting more whitefish in the winter. We recognize the multiple factors that affect subsistence but concentrate our

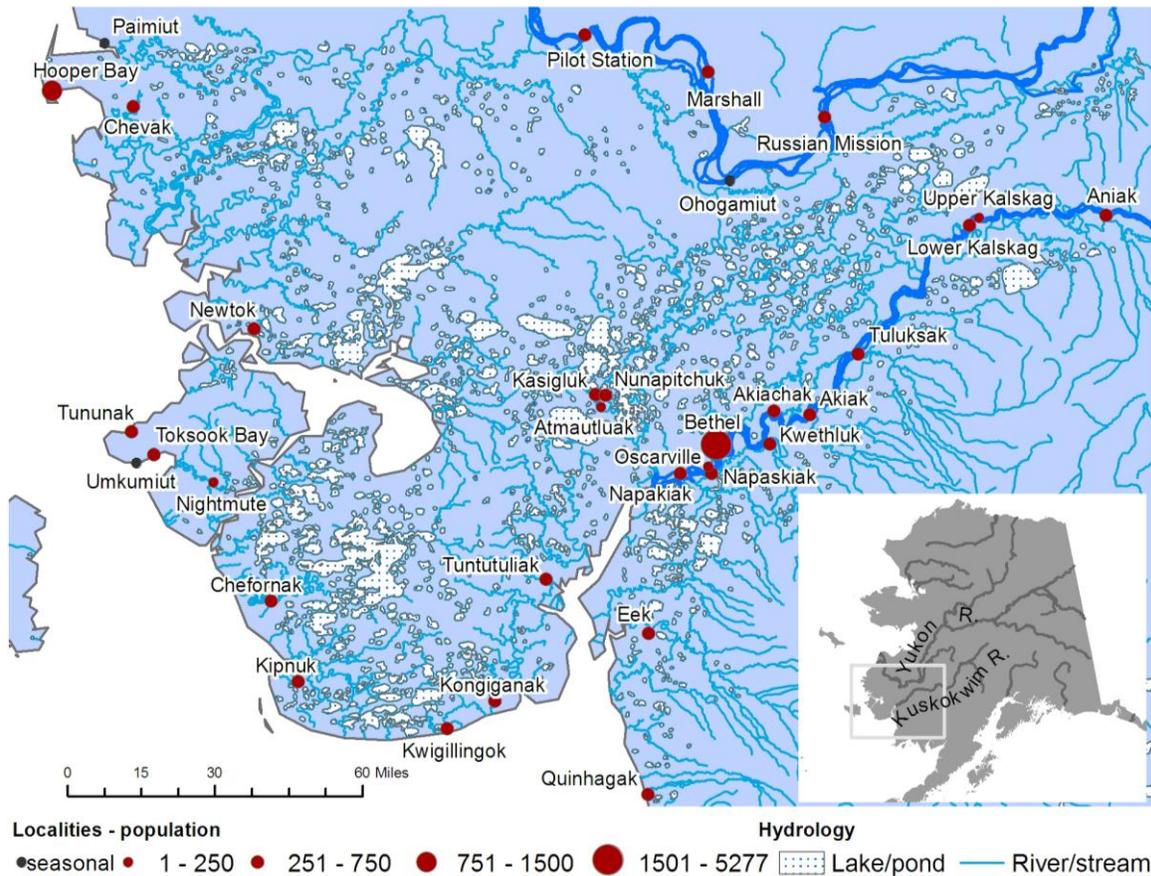


Figure 1. Map of Study Area

analysis here on the historical development of regulations and how they impact contemporary communities in the Y-K Delta.

The ethnographic material from the case study is based on interviews conducted in six villages of western Alaska. This fieldwork took place in June and July of 2008 and is part of a larger National Science Foundation (NSF) interdisciplinary project titled, "Salmon Harvests in Arctic Communities: Local Institutions, Risk, and Resilience." The project combines anthropology with experimental economics to understand how local institutions change as resources begin to fluctuate more wildly and become more uncertain. Local institutions include the informal rules, norms, and customs that individuals, households, and communities use to manage natural resources (Ostrom et al. 1994). This article reports on preliminary results of the initial fieldwork in the Y-K Delta.

A Brief Legal History of Land Management, Regulations, and Subsistence in Alaska

When the US purchased Alaska from Russia in 1867, Tsar Alexander II relinquished all claims to 553,000 square miles of territory for \$7.2 million. Russia's decision to release its North American colonial landholdings was made without any consultation with Alaska's indigenous peoples. In 1971, Alaska Natives would win a land claim – the Alaska Native Claims Settlement Act (ANCSA) – based largely on this error. This section briefly traces the history leading up to ANCSA.

The Organic Act of 1884, which provided the first civil government for the Alaska Territory, promised some protection for lands used and occupied by Alaska Natives but left clarification of their specific land title to future legislation. The issue was raised again in the Statehood Act of 1958, which disclaimed all right or title to lands "the right or title to which may be held by Eskimos, Indians, or Aleuts" or held in trust for them (Arnold 1976:91). The state selection and development of federal lands, used and occupied by Alaska Natives since time immemorial but sold to the United States in 1867 without their consultation, was deeply problematic.

At the time of statehood in 1959, Alaskans were predominantly employed by government entities and the new state was challenged to produce domestic sources of revenue. In 1968 Atlantic Richfield discovered the largest oil field in North America on land that the Division of Lands had selected under the Alaska Statehood Act. Legal title to these valuable tracts now belonged to the state. The ensuing rush to develop Alaskan oil compromised Alaska Natives' aboriginal title – that is, the legal title that Alaska Natives held to most of the state's 375 million acres established over millennia of continuous occupancy and use (Mitchell 2001). Case (1984:47) clarifies this legal designation:

Aboriginal title differs from fee simple title in that aboriginal title is only the right of exclusive occupancy and does not include the ultimate fee, the ability to freely convey the occupied land. Aboriginal occupants may sell their lands, but only the federal government or those authorized by it may purchase such lands. This basic rule is founded on early principles of international law.

The need to settle land claims with Alaska Native groups in order to develop oil led to the passage of ANCSA in 1971. Unlike most federally recognized tribes whose reservation lands are held in trust by the federal government, ANCSA authorized Alaska Natives to be paid \$965.2 million and to select forty-four million acres of federal land as compensation for Congress's permanent extinguishment of their aboriginal land title, hunting, and fishing rights (Mitchell 2001:9). ANCSA also required that the funds be used to create twelve for-profit Alaska Native regional corporations. Each Alaska Native alive on December 18, 1971 could register to receive one hundred shares of inalienable stock within their regional corporation and they became shareholders in the corporation. Some consider ANCSA to be the most generous and innovative aboriginal claims settlement in U.S. history (Mitchell 2001). Others have criticized it as an extension of America's policy of terminating tribal sovereignty (Wilkinson 2006).

Regardless of interpretation, ANCSA represents a momentous achievement in scale never since replicated by an indigenous group in American history. This is because Alaska Natives were the last group contacted and thus the last negotiators of partial sovereignty among all indigenous peoples in the U.S. While the Act's effect on the political geography and economy of the state is remarkable, it is more significant to this paper that the final version of ANCSA passed by Congress took no action to protect Native subsistence uses of fish and game. Instead, Alaska Natives received vague promises from the U.S. Congress to protect Alaska Native subsistence in relinquishing their aboriginal title. According to Case (1984:295), the conference committee report which accompanied ANCSA stated that:

The Conference Committee after careful consideration believes that all Native interest in subsistence resource land can and will be protected by the Secretary through the exercise of his existing withdrawal authority ... The Conference Committee expects both the Secretary and the State to take any action necessary to protect the subsistence needs of the Native.

The State Subsistence Act of 1978 paid lip service to those promises. It identified subsistence as the highest priority use on public lands and waterways, above commercial and sport hunting and fishing in times of scarcity (Lee 2002). It failed, however, to address Native subsistence rights specifically. The Act define "subsistence uses" identically to section 803 of the later Alaska National Interest Lands Conservation Act (ANILCA) with one crucial distinction – "it was not restricted to 'rural Alaska residents,' but applied generally to 'customary and traditional uses in Alaska'" (Kancewick and Smith 1991:663). Thus, there was no Native or even rural preference.

In 1980, Congress passed ANILCA. It was a massive land withdrawal and classification scheme whose seeds were sown in ANCSA section 17(d)(2) that authorized Congress to withdraw 80 million acres of public lands for possible inclusion in the National Parks, Forests, Wildlife Refuges or Wild and Scenic River systems. ANILCA also attempted to clarify the Alaska Native subsistence-rights issue left vague under ANCSA. Title VIII of ANILCA created a "subsistence use" priority of wild resources

over other consumptive uses during times of shortage. The Act did not, however, create preferential rights for Alaska Natives under federal subsistence law. Instead, it awarded an allocation preference on the basis of rural residency rather than ethnicity, even though ethnicity-based preferences had earlier been granted for Alaska Native coastal community residents through the Marine Mammal Protection Act of 1972 (Thornton 2001). Title VIII framed subsistence as "...customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption" (Case 1984:300). In addition, ANILCA required the state to manage fish and game resources according to federal subsistence requirements. This was the price Alaska paid for the right of managing fish and game on federal (public) lands to which the state had conformed by 1982.

Federal compliance was sought in 1986 when the State of Alaska amended its 1978 Subsistence Law with a rural-residency clause. In 1989, however, *McDowell v. the State of Alaska* overturned the rural-residence priority on the grounds that it was discriminatory and therefore unconstitutional, thus giving all Alaska residents equal access to subsistence activities regardless of ethnicity or residence (Lee 2002). In response, the federal government deemed Alaska out of compliance with ANILCA and in 1990 took over management of subsistence hunting. More recently in 1999 the Federal Government took over fishing on federal lands while the state maintained management authority over state and private lands. Thus, this arrangement created an odd patchwork with dual regimes and regulations (Thornton 2001).



Figure 2: Roy Atchak gathering swan eggs, Chevak - May, 2008

Alaska presently manages subsistence under two citizen boards, one for fish and one for game, which are both advised by the Alaska Department of Fish and Game (ADF&G). The two are staffed mostly by biologists with input by local advisory groups usually dominated by commercial and sports interests (Thornton 2001). The federal government, on the other hand, created a Subsistence Board made up of federal land and resource managers and advised by ten regional councils consisting of appointees from local communities. Despite numerous efforts, attempts to amend the state constitution to establish a subsistence preference of any kind have been consistently defeated by the state legislature.

Indigenous Perspectives

This momentous shift in the management of Alaska's subsistence resources from individuals and communities to formal, governmental institutions far removed from rural Alaska is cause for frustration, anger, and resentment in Alaska Native communities. Many Alaska Natives view such restrictions as incompatible with their own traditional practices and worldviews, embedded as they often are with local knowledge, customs, and beliefs that can have a regulating impact on subsistence harvests (see Figure 2). Having to navigate bureaucracy to do something that is fundamental to what defines Alaska Native culture and identity seems foreign to many born before statehood as well as those born after 1959. Others see the necessity of outside management but often disagree with the way it is carried out. Thornton (2001:88) frames the conflict as one between two opposing worldviews that place humans in different positions in relationship to nature:

the state concentrates exclusively on monitoring and controlling the physical aspects of subsistence ... while Native subsistence hunters and fishers engage in a wide range of social and spiritual practices designed to preserve (few would use the term "manage") a moral, physical, and social order with non-humans that extends well beyond the material realm. As a consequence of this cultural and paradigmatic divide, a great deal of miscommunication and misunderstanding occurs between Native and non-Natives not only about the meaning of subsistence but also how it should be valued and protected.

One view is of man inherently above and outside of nature while the other is of man participating vulnerably within nature as part of the web of life with other sentient beings. Wolfe (2006) describes the Yup'ik perspective within the context of these competing world views when in the late 1980s tensions mounted between non-Native sport fishermen and Yup'ik subsistence fishermen on the Togiak, Kanektok, and Goodnews rivers. Wolfe writes: "For the Yup'iks of southwest Alaska, the natural world of animals and plants is filled with a conscious awareness of how humans treat them. Animals are not just like persons; they are persons in their own right. Beneath the physical form of coho, sockeye, or char are living beings capable of keen perception, thought, emotion, and powerful action" (2006:72).

As persons, all animals – even fish – possess agency and a will of their own, deciding when and if they will return again and to whom. Sport fishing, then, was perceived by some Yup'ik subsistence fishermen as abusive and disrespectful with no concern for the feelings of the fish or the pain endured when they are hooked. By "playing with fish," sport fishermen were disrupting this delicate natural order and possibly creating abnormalities in the physical appearance of offended fish, making them inedible (Wolfe 1988). Like Nadasdy's work among the Kluane Athabascan people of Canada, there is a mismatch between the belief systems of indigenous hunters and the bureaucrats who manage game (2003).

Official Regulations in the Y-K Delta

The study area is a mosaic of land and water managed by several different state, federal, and Native entities. There are small sections of private lands, larger sections of Alaska Native corporation lands, and some lands owned by individual Alaska Native village corporations. Regardless, the study area is dominated by the Yukon Delta National Wildlife Refuge (NWR) created by ANILCA in 1980. The US Fish and Wildlife Service (USFWS) Office of Subsistence Management (OSM) manages subsistence activities in the Yukon Delta NWR. With the exception of Kalskag, all the study villages lie within Game Management Unit (GMU) 18 of the USFWS. USFWS regulations and restrictions are unique to each GMU. One of the most controversial rules relates to moose hunting whereby the lower Kuskokwim section of Unit 18 is closed on federal lands. Residents can still hunt moose on private or Alaska Native corporation land but these areas comprise a very small portion of the entire area.

Regulations for the open sections of Unit 18 require that hunters purchase a permit, specify a bag limit of one antlered bull per permit, and establish dates for the fall and winter hunting seasons (US Fish and Wildlife Service 2008). They also establish the Kalskag Controlled Use Area north of the village, which bans the use of aircraft for transporting hunters. The Kuskokwim Corporation (TKC) owns some lands upriver from Kalskag on the Kuskokwim that lie outside of Unit 18. TKC has restricted moose hunting to only its shareholders on its corporate lands and has imposed fines on non-shareholders. Non-TKC shareholders from downstream communities can opportunistically take moose so long as they are shot along the river because lands immediately adjacent to the waters are managed by ADF&G. Overall, moose hunting is subject to a complex constellation of regulations depending on who you are, when you are hunting, and where you are hunting. The net effect has been to increase pressure from downstream villages located in the moose moratorium areas on upstream hunting grounds.

Due to the *McDowell* decision in 1990, all navigable waters are regulated by the State of Alaska through ADF&G. Thus, the agency controls commercial, sport, and subsistence fish harvests on the Kuskokwim. As part of ANILCA, the subsistence fishery has priority over the other two in times of scarcity (Thornton 2001). Subsistence harvests are subject to very few rules and the Kuskokwim subsistence fishery had hardly any regulations until 2001. Following significant declines in the abundance of chum and king (Chinook) salmon in 1997, ADF&G began to regulate the river more heavily and even closed the commercial chum fishery. By 2001, ADF&G and the Kuskokwim River Salmon Management Group (KRSMWG) decided to institute “windows” for opening and closing subsistence fisheries on the Kuskokwim (Hamazaki 2008). The subsistence salmon fishery was decreased from seven days per week to just four. The goal was to reduce pressure on king salmon by downstream communities early in their run in order to allow more fish to survive and travel upstream. The windows were abandoned in 2007 as runs increased on the river.

Other subsistence restrictions, however, persist on the Kuskokwim. ADF&G sets limits on the mesh size for nets. They also close the subsistence fishery for six hours before,



Figure 3: Research Assistant Uyuriukaraq Ulran with an Elder, Lucille Alexie, Nunapitchuk – June, 2008

during, and three hours after each commercial fishing period. There are numerous other regulations for fish and game in the study area and this section has discussed those formal rules that most affect people in the villages in which we worked.

Fieldwork in the Yukon-Kuskokwim Delta: June, July 2008

Wolfe (2004:1) reminds us that “There is not one subsistence tradition in Alaska, but a multitude of subsistence traditions linked to particular localities.” The local nature of subsistence and the way that

traditions are exercised and thought about changes from region to region and between communities and individuals. For these reasons, our project selected six different villages in the Y-K Delta in which to conduct ethnographic fieldwork. We chose each village based largely on geographic criteria such as down river, coastal, and upriver locations. Villages located along the Kuskokwim depend primarily on salmon harvests. Because salmon are anadromous and migrate upstream during the spawning season, upstream localities tend to be affected by the harvesting of salmon downstream (Ebbin 2002). This article uses interview data from six Y-K villages: Chevak, Tuntutuliak, Tuluksak, Nunapitchuk, Lower Kalskag, and Kalskag (see Figure 1).

A team composed of one anthropologist (the second author), one student (the first author), and a research assistant/translator (Uyuriukaraq Ulran) conducted personal interviews in each community over the course of four to five days (Figure 3). Ms. Ulran is a Cup’ik woman from the village of Chevak who grew up in the Y-K Delta and had spent considerable time in each community. Thus, her personal knowledge of each village was invaluable and facilitated our rapid ethnographic approach. Linguistically, Cup’ik and Yup’ik (Central Alaska Yup’ik) are very similar and Ms. Ulran is capable of translating in both languages. Within each village, we worked with a community coordinator who identified potential participants in consultation with village leaders from the Tribal Council.

In order to obtain a representative sample, we established three categories of people: Elders (60+), middle-aged persons (35-60), and young adults (18-35). We further divided these categories into men and women making six categories altogether. Subsistence tasks vary with gender as men typically hunt and fish while women process the harvest. We controlled for age in order to gain a perspective on the historical development of subsistence and detect change between generations. Interviews were recorded and lasted from 30 minutes to nearly two hours. Altogether, we spoke with 63 individuals across all villages.

We used an open-ended topic outline as a guide for interviewing individuals. The instrument consisted of questions that asked:

- What kinds of subsistence activities they engaged in.
- How they decided how much to harvest.
- How they shared harvests.
- What local institutions they were familiar with.
- How their subsistence activities were affected by official regulations.



Figure 4: Heather Sumi and Sidney Brink fishing with driftnets on the Kuskokwim, Nunapitchuk - June, 2008

As much as possible, we also participated in subsistence activities in order to learn about fishing, gathering, and processing first-hand. We were able to go fishing for salmon on the Kuskokwim River using driftnets (see Figure 4). We

also helped cut salmon, gather greens, fish for herring and salmon using set nets, and gather bird eggs. Yup'ik communities are renowned for their hospitality and we were frequently invited to eat with families where we sampled many different subsistence foods such as salmon, seal oil, goose eggs, greens, Yup'ik ice cream (*akutaq* - made with salmonberries, sugar, and shortening), caribou stew, and numerous other dishes. Lastly, we spent considerable time in Yup'ik *makiviit* or saunas "taking steam" with the people with whom we interacted. All of these activities helped us become involved with the communities and enrich our understanding of a subsistence way of life.

One interviewee in Nunapitchuk, Jim Edwards³, was an Elder⁴ originally from another Kuskokwim village. Mr. Edwards grew up in the regional hub Bethel and moved to Nunapitchuk in the late-1950s. People traveled by skin boat and bartered dry fish for store-bought goods when the commercial barges began coming. He said that despite being materially poor, most everyone was respectful toward one another and full of humility. He also remarked that he and his wife prayed to God when they were able to get fish, which can be interpreted as the substitute equivalent of *Ellam Yua*, or "Great Person of the Universe" (Wolfe 1988:12). Like many other older respondents, Mr. Edwards stressed the difference in work ethic before people were able to rely on federal assistance. During his youth, there were no alternatives to fishing for survival. Today, some people are "lazy" and eat "store food." Every village has at least one store that sells groceries, gasoline, and other necessities. Prices for meat, milk, and other foods are double or triple the price of the same item in the continental U.S. or even Anchorage.

³ All names used are pseudonyms to protect participant confidentiality.

⁴ In Yup'ik communities, elderly community members hold elevated status. Thus, we capitalize the word and use the term "Elder" to be consistent with local practices.

Most traditional residents like Mr. Edwards consider store-bought food to be unsatisfactory, unappetizing, and unhealthy. After eating store food, one is never full. Traditional foods such as salmon, berries, and moose meat are considered most healthful and nourishing (see Figure 5). Because of government transfers such as food stamps and other programs, some residents of Alaskan rural villages rely heavily on store food.

Traditional community members like Mr. Edwards criticize this dependency, feel that it disconnects people from the land, and ultimately erodes a subsistence way of life. In the past, Mr. Edwards told us that people who did not hunt, fish, or gather would wind up going hungry: “In those days because they didn’t do enough they went without.” Throughout the six villages, we frequently encountered this criticism of stores, food stamps, and the people who use them. This critique points out that subsistence is threatened not only by formal regulations but also by changing social preferences for a consumer lifestyle.



Figure 5: Salmon drying on a rack, Tuntutuliak - June, 2008

Another Elder, Raymond Evan, emphasized an underlying mutual respect between individuals within the community that extended to animals. He was taught that human beings are always being watched. Thus, they must avoid messiness and bury the bones of animals so that they might return in the future. They do this out of respect for the resource. We observed this first type of behavior – avoiding messiness – while drift-netting with three Nunapitchuk residents on the Kuskokwim River. After the net had been pulled in several times with few salmon, the inside of the boat was completely cleaned of the debris that had been left behind in the bow of the boat with surprising thoroughness. Whether this was because the owner of the boat preferred that it be cleaned right away or because of a perceived relationship between a clean boat and the size of the catch, is not altogether clear. Nonetheless, the subsequent drifts improved significantly and we caught ten to twenty salmon with each drift.

Our fieldwork coincided with the salmon runs on the Kuskokwim and people were busy fishing and processing the catch when we arrived (see Figure 6). As women cut fish to hang and dry, they carefully remove the internal organs, gills, and heads with an *uluq*, a traditional half-moon knife, and scrape them into bins or five-gallon buckets. The heads were reserved for burying in the ground to ferment and make a Yup’ik delicacy called “stink heads.” The gills and certain organs were fed to dogs. Men hauled any unused or inedible scraps back to the river where they carefully poured them back into its waters. At all times, men and women took great care to minimize waste and mess. This is tied to an overarching value regarding respect for the land, food, and animals. Participants often warned that if they disrespect the resource, it will go away. They attribute recent crashes in salmon runs and moose populations to wasteful and disrespectful behaviors.

Another Elder, Rose Andrews, framed these practices in a different way. She described them as ranked priorities. The first of which (in this case fish) is not to make a mess with the catch when cleaning it and to bury the inedible parts to ensure that there would be more in the future. The second priority is to share the catch. Customarily, people must first give to the Elders in a community and then to nuclear or extended family members. Fishermen and hunters share their game and fish with those who cannot fish and hunt for themselves due to age, illnesses, or a lack of equipment. This type of distribution and reciprocity, which sustained families in the past, continues to shape and define social relationships in the present. Wolfe and Ellanna write that giving and receiving subsistence foods “occur so frequently that it seems doubtful any significant social relationships exist without associated food transfers” (1983:42). The two types of behavior are therefore complementary. Precautions taken to help ensure that food supplies remain constant also provide the resources needed to express the “complex symbolic meanings concerning the structure, strength, and quality of social relationships” through giving (Wolfe and Ellanna 1983:44).



Figure 6: Elena Simon with her daughter Dana Marie Simon cutting fish, Tuntutuliak - June, 2008

Residents of Nunapitchuk and Tuntutuliak are able to take part in the commercial fishery that takes place near the mouth of the Kuskokwim. If they own a permit and the fishery opens, fishers can travel down-river in their boats and participate. The other villages lie too far away to effectively engage in commercial fishing. Yet according to ADF&G regulations, fishers in upriver communities cannot subsistence fish during certain window periods discussed above or when the commercial fishery is open. People in Kalskag and Lower Kalskag explained that this can be particularly harmful for them because of the seasonal migratory behavior of king salmon. There are typically two pulses of kings on the Kuskokwim and the first is weaker than the second. Because of the timing, the first pulse may reach upriver villages at precisely the time the second is arriving in the Bethel area. Thus, the commercial fishery will be opened downriver, while the subsistence fishery will be closed all along the river. This leaves upriver communities unable to get their catch of kings. Kalskag and Lower Kalskag fishers never know if the second pulse of king salmon will be sufficiently abundant. It may also be delayed and arrive at a time when rains and flies make drying the fish difficult. Overall, upstream villages are negatively affected by regulations for the downriver commercial fishery from which they obtain few benefits.

Upstream-downstream relationships have been tense on the Kuskokwim River within the last several decades. In 1973, many middle and upper Kuskokwim residents, dissatisfied with the Calista Corporation (the Alaska Native Regional Corporation for the Y-K Delta region created by ANCSA) in addressing their concerns, created TKC, of

which Lower Kalskag and Kalskag are members. In that year, the State Legislature passed the Limited Entry Act, which sought to cap the number of commercial fishing operators in Alaska fisheries at historical levels (Ebbin 2002:155). The Act established the Commercial Fisheries Entry Commission (CFEC), which issued transferable permits to qualifying fishermen based on a point system to be implemented on the Kuskokwim three years later. Of the 839 Kuskokwim permits ultimately issued, however, only 30 were distributed to fishermen in the middle or upper part of the river (Ebbin 2002:155). Up-river villages are less able to participate in the commercial fishery due to their distance from the mouth of the Kuskokwim and their lack of permits.

Moose have been gradually expanding into the Y-K Delta over the last 75 years. Although the lower Kuskokwim provides ideal moose habitat, hunting pressure has kept the animals from establishing a local breeding population and moose are sparsely distributed. Lower Kuskokwim hunters have had to travel hundreds of miles upriver in order to find moose in significant numbers. In fact, a five-year moose hunting moratorium was enacted by the Alaska Board of Game for downriver areas in 2004 (Steinacher 2004). This action was the result of discussions with village leaders over a period of five years through the Lower Kuskokwim Advisory Council, which passed a resolution to create the moratorium in 2003. Thus, it is an example of a self-imposed ban on present-day moose-hunting with an eye toward future harvests.

The moratorium affects all villages from Lower Kalskag on down the Kuskokwim. The long distances hunters travel greatly increases transportation costs. It also increases the number of hunters in upriver areas. Residents were unhappy about the movement of larger boats into smaller upriver tributaries. They complained about the large wakes and their potential harm to people and property and the wasteful behavior of hunters from villages on the lower river (Ebbin 2002). In the early 1990s, TKC established a \$400 permit for camping and hunting on its lands by non-shareholders to the widespread resentment of outside hunters. As one ADF&G biologist suggests: "as Bethel has grown, the conflict around it has increased. The upriver people, who hold the land of the moose, want more access to fish. They look at it as payback and tradeoffs" (Ebbin 2002:163).

As we spoke with residents of Nunapitchuk, they regard the moose moratorium as a necessary precaution to protect the resource for all hunters. The actual border between GMUs runs directly between Lower Kalskag and Kalskag. Lower Kalskag hunters expressed frustration that a bull could be right in their backyard and therefore illegal to be hunted. Kalskag hunters expressed concerns that their preferred hunting areas are now overcrowded with downriver hunters. They resent the moratorium and feel it is time for it to be removed. This is partly due to their exclusion from hunting local moose, which they deem unfair. Some residents also added that "when you talk too much" the resource disappears. Thus, simply all the discussions in villages and at game board meetings likewise negatively impacts game and fish.

We selected Chevak as a control community because it is remote and lies far away from the Kuskokim River (see Figure 1). The rivers and bays residents of Chevak use to hunt and fish are largely unregulated because there is no commercial fishery. The area is also

sparsely populated with only one other village, Hooper Bay, nearby. As we spoke to people about regulations and subsistence, Chevak residents emphasized that they are largely unaffected. They rarely encounter aircraft or patrol boats that ADF&G uses to monitor harvests. Unlike villages on the Kuskokwim, Chevak fishers and hunters explained that they do not feel pressure from other communities on their fish and seals due to their relative isolation and the fact that these resources are always abundant. Interviewees expressed concern that food stamps and easy access to store-bought food threaten a subsistence way of life. Chevak illustrates the role geography plays in structuring conflicts over subsistence but underscores the way modernity is affecting subsistence throughout the Y-K Delta.

Conclusion

Subsistence rights remain a potent political controversy in Alaska today. This article has traced the historical roots of the controversy dating back to the original purchase of Alaska by the United States from Russia in 1867. The State of Alaska is preparing for its 50th year of statehood celebration in 2009 but some Alaska Native leaders openly question whether they truly have anything to celebrate. Over the 150 years since the purchase, Alaska's First People have experienced tremendous political, economic, and social change. Through ANCSA, villages and Native Corporations gained legal rights to some of the lands they had occupied for millennia. Native villages have gained increased access to education, modern infrastructure, and medical care. All of these gains came at a tremendous cost, however. Alaska Natives lost local control over fish and game that form the bedrock of their subsistence way of life, cultural identity, and spiritual connection to the land.

Hunting and fishing now take place within a bewildering array of federal and state regulations that change from one year to another and from one management unit to the next (see Braund 1980). Yup'ik fishermen on the Kuskokwim River in western Alaska can be fined or jailed if they fish with the wrong sized net or drift for salmon on a day and at a time that is closed for the commercial harvest that takes place miles downriver. Interviewees recounted stories of friends and relatives who had had their boats and motors impounded by ADF&G for these infractions. They also told us that they can watch a moose tromp through their own yard damaging gardens but have no right to shoot it due to hunting restrictions. Many participants acknowledge a need for formal fish and game management because resources fluctuate and it takes cooperation across villages to ensure that salmon and moose are always available. They also have the ability to participate in management policies through advisory councils and even requested the current moose moratorium.

Our case study confirmed many of the same findings discussed by Thornton (2001), Wolfe (2006), Berkes (1999), and Nadasdy (2003). The tension between formal regulations and local institutions is due largely to the ways agencies rely on "empirical knowledge" to "scientifically" manage resources while local Yup'ik hunters and fishers believe that these resources are controlled by complex human-animal relationships that revolve around issues of respect. The above authors focused primarily on conflicts

between indigenous peoples and government organizations or non-Native resource users such as sport-fishermen. Like Ebbin (2002), we found that although controversies revolve around Alaska Native and non-Native divisions, regulations often have the unintended consequence of promoting conflict among Alaska Native communities. These conflicts became evident in discussions of salmon fishery windows, subsistence salmon closures for the commercial fishery, and the moose moratorium. Yet these inter-village conflicts appear to be unique to the Kuskokwim due to upstream-downstream resource and policy dynamics. Across communities, however, access to stores fueled by government transfers is slowly undermining a subsistence way of life.

There are no easy solutions to the controversy over subsistence in Alaska today. Within Alaska Native villages and across them, there is a diversity of views. Some residents see a direct clash between Yup'ik values and formal regulations while others see opportunities for local leaders to cooperate and co-manage subsistence resources. Tensions persist due largely to misunderstandings between regulatory agencies, urban constituencies, rural villages, and scientists. By exploring the historical development of subsistence laws along with contemporary views by subsistence users, we have illuminated the complexity of these issues. The framework for resolving management issues is continually evolving. Although there is still no Alaska Native subsistence priority, indigenous groups have much more input into regulatory decision-making today than they have had in the past.

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