# **Studying Subsistence in Sitka**

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Anthropologists have always been interested in subsistence and food-getting strategies. They are the basis of human life and influence other aspects of culture such as group size and divisions of labor. This is why many introductory anthropology texts begin their discussion of human behavior and cultural variation by classifying societies in these terms: foraging, pastoralism, horticulture, and agriculture. All four subsistence strategies exist today, although the number of people practicing the first three, especially foraging, have greatly diminished. Today, both small-scale and industrial agricultural food systems dominate, and even the most isolated people are enmeshed to varying degrees in the macro, if not global, economy.

## **Doing Applied Research**

In 1983, we were awarded a contract to conduct research on contemporary subsistence or "self-provisioning" in Alaska for the state's Department of Fish and Game (ADFG). Alaska is unique, certainly in the United States, in the number of people who harvest wild foods. The state has bountiful land and marine resources, and indigenous cultures--Aleut, Athabascan, Alutiiq, Haida, Inupiat, Tlingit, Tsimshian, and Yup'ik--that to varying degrees still practice traditional foodgetting strategies, while also earning money from paid employment. Many non-Native Alaskans choose to live in the state precisely because of its rich natural environment and the opportunities it provides to hunt, fish, and collect wild foods.

The right to harvest wild foods for subsistence use was enshrined in the Alaska National Interest Lands Conservation Act (ANILCA) of 1980. With 100 million acres of Alaska becoming federal land, both state and federal agencies were charged with balancing conservation and economic development with public access to the land for subsistence activities. Subsistence was defined in the law as "customary and traditional uses of wild resources for food, clothing, fuel, transportation, construction, art, crafts, sharing, and customary trade," but *not* sale.<sup>ii</sup> At the time of our study, only rural residents (i.e., communities of 2,500 or less) could participate in subsistence harvesting under state and federal law.<sup>iii</sup> It is not surprising, therefore, that most research on the subject had been conducted in rural Alaska, usually in villages with majority Native populations. To broaden an understanding of subsistence, the ADFG wanted to examine its role in the lives of people in an urban setting.

We were hired to do so, and Sitka, then the state's fifth largest community with about 8,200 people, was selected as the research site. iv Our task was to discover everything we could about

the town's subsistence foraging. To what extent did these urban households rely on wild foods? What species did families hunt, fish, and gather? How often and how far did they travel to do so? Why did people choose to forage when they could so easily buy food at one of Sitka's grocery stores? What issues surrounding resource use were of greatest concern to residents? Our findings would be written up as a report which would be used by the ADFG and other government bodies to help manage Alaska's wild resources.

## Sitka: The Place and Its People

Sitka sits on the outer or Pacific coast of mountainous Baranof Island in southeast Alaska. It can only be reached by air or sea. It lies within the boundaries of America's largest national forest, the Tongass, which covers seventeen million acres -- about the size of West Virginia. It is the earth's largest remaining temperate rainforest; home to Black-tailed deer and brown bears. But the Tongass is also a "salmon forest" because of the huge numbers of fish that return from the Pacific to spawn and die in its streams and who, after being eaten and excreted by predators and scavengers, add nutrients to the forest floor in an elegant, synergistic cycle.

This mixture of mountains, forest, and sea creates a scene of great beauty, enhanced by the many small islands that dot Sitka Sound. The view out to sea is dominated by 3,200 foot Mt. Edgecumbe, a dormant volcano on nearby Kruzof Island. Indeed, the Tlingit name for Sitka, *Sheet'ka*, means "the village behind the islands." Sitka's urban landscape is also picturesque with harbors, fishing boats, and historic sites like onion-domed St. Michael's Cathedral, a remnant of Russia's nineteenth century colonization. Most important from the viewpoint of the research is Sitkans' easy access to many edible land, tidal, and marine resources.

About one fifth of Sitka's population is of Tlingit descent. The Tlingit have resided in Sitka for millennia, ranging widely to hunt, fish, gather, trap, and trade. The latter often involved bartering local wild foods like herring eggs deposited on hemlock branches for less easily obtained items like eulachon (candle fish) oil. Intertidal resources like seaweed and clams were, and continue to be, important. Unlike foragers in many parts of the world, the Tlingit traditionally lived in semi-permanent villages, only moving to clan fish and sealing camps in season. The area's abundant resources provided such a rich and varied diet that more frequent nomadism was unnecessary. Today, like Sitka's non-Native population, virtually all Tlingit have paid employment, many working in commercial fishing or processing, health services, tourism, or government.

#### **Settling In**

In early June, I (Sharon) flew to Sitka with our nine month old son Morgan. George had arrived three weeks earlier to convert our friend Richard (Nels) Nelson's small boat house into our temporary home. It was perched on pilings over the water of Sitka Sound. Under the direction of a local carpenter, George insulated and paneled its bare stud walls, laid a plywood floor, wired it for electricity, and installed a picture window to get light and a view of the bay. It was a very

Alaskan space, the rafters loaded with all manner of gear: ropes and paddles; plastic floats that had drifted across the Pacific from Japan; life vests and orange survival suits to be worn whenever we traveled any distance by boat; fishing poles; and a skin-covered kayak from Nels' research with the Inupiat. Tucked into the corners of the room were folded tarps, 5-gallon plastic tubs, assorted tackle and rubber boots. A table beneath the window served as our desk. Rounding out the amenities were an ancient oil furnace, a garage-sale refrigerator, and, as it turned out, a dangerous propane stove. The first time I turned a burner on, a sheet of flame shot across the floor, narrowly missing Morgan who was playing nearby. The bathroom and running water were across the road in Nels' basement which was crammed with more gear and the fruits of his subsistence activities: shelves of salmonberry and huckleberry jam and a freezer full of venison, halibut, and salmon.

Our boat-house apartment and Nels' home became our operational base. His partner Nita, precise and endlessly patient, managed the project's finances, took on the tedious task of transcribing our interview tapes, and answered many annoying computer-related questions. It was our first fieldwork using a computer, which is now hard to believe. We had a state-of-the art Kaypro, one of the first personal computers. It was the size of a small suitcase and weighed 29 pounds, but considered portable. It had just 64 KB of memory; today's iPhones have 15,000 times as much.

#### The Research Design

In order to get a well-rounded view of Sitkans' resource use, we adopted a multi-method approach including participant observation. George joined a softball team to get to know people and would often do short, informal interviews in the outfield during batting practices. I met locals interested in subsistence while taking a course on identifying edible wild plants. We also attended community events, such as dinners at the Alaska Native Brotherhood (ANB) Hall where wild foods were always served. We read the local newspaper and listened to local radio, my favorite program being "Problem Corner" whose announcements often related to resource use with people calling in to sell equipment or trade smoked salmon or berries for some other wild food. Once I had to laugh despite the seriousness of the call: "Will the woman who is eating foxglove at the corner of Cathedral and Seward please report to the Emergency Room at the hospital before you go into convulsions!"

We also did our own subsistence harvesting. While fishing, picking berries, or digging clams in the intertidal zone, we were able to watch and often talk to others engaged in the same activities. We processed our harvests in Nels and Nita's kitchen and backyard smoker. Like most Sitkans, we put up salmonberry jam, smoked salmon, and even tried our hands at making kelp pickles and kelp chips. We also shared many potluck meals with others, where it usually took little effort to steer conversations onto subsistence.

The research also involved formal interviews with local experts and resource specialists including ADFG and US Forest Service biologists, Fish and Wildlife protection officers, and

Tlingit elders. We consulted community and cultural organizations like the Cooperative Extension office and the ANB, and local businesses, including a boat dealership, sporting goods stores, air charter firms, taxidermists, and supermarkets to learn the full range of local people's resource use. We even arranged for students in a tenth grade high school English class to write essays about their favorite subsistence activity.

In addition to the rich qualitative data these interviews and activities provided, the ADFG wanted a large survey which would yield representative and broadly generalizable information about the proportions of Sitkans involved in different subsistence activities and the where, when, and to what end they harvested local resources. Although ADFG staff valued qualitative data because they knew it was important to understanding the context and reasons for people's behavior, they needed statistics to present to state and federal agencies. So we developed a 106-item survey on Sitkan's household use of local resources. It covered all activities associated with hunting, fishing, and plant and intertidal gathering, including the sharing and distribution of what was obtained. We also had supplemental questions on trapping and commercial fishing for those households that engaged in these activities.

We had used small, informal surveys in earlier fieldwork; this was our first large-scale survey using a random sample. Vi Since we could not possibly interview every household in Sitka in the three months allocated to the research, we settled on a six percent sample (n=146). We had three part-time research assistants to help conduct the interviews: Libby Halpin, Matt Kookesh, and Gabe George, the latter two being Tlingit ADFG employees. Their observations and insights as well as labor helped enormously.

I enjoyed the challenge of devising a method to select a random sample. I began by obtaining a map of Sitka's electoral districts, the number of electors in each, and a list of everyone living on boats. I calculated the percentage of Sitka's total population living in each district to determine how many households in each we would need to interview in order to get our desired sample size. Next, I devised a simple way to randomly select which streets in each district we would go to and which households to interview on each street. VII Finally, our team of five set to work, each person armed with clip board, pens, printed surveys, and a detailed map of his or her allotted districts with the selected streets and the number of needed households marked in red.

Conducting a study for the ADFG gave the research legitimacy and a reason to enter nearly 150 homes in order to talk to local people about their resource use. It enabled us to meet a broad range of people and demonstrated the synergy that can exist between qualitative and quantitative methods. The study was announced locally on Raven Radio and in the *Sitka Sentinel* newspaper which contributed to people's cooperation. When we showed up at the door, people often expected us and were pleased to be included. We interviewed only adult household heads, and ended up with an impressive 97 percent response rate.

Our interviews usually took about an hour to complete, but some lasted twice as long. We encouraged people to discuss their harvesting activities in detail and wrote up the extra information in field notes. "Really enjoyed my two hours with him," George noted after talking to a 60 year old Tlingit man who was a heavy resource user. "He could see what I was looking for and stayed on subject." Most people talked readily about their subsistence activities, often taking time to remember or calculate how much they had harvested in the previous twelve months or really attempt to explain why they engaged in a particular activity. Only when it came to telling us where they harvested a scarce resource, like abalone, did they hesitate or hedge their answers. Occasionally we were invited to sample foods as we talked. One elderly Tlingit woman fetched a bottle from her refrigerator to show me the Devils Club tonic she had made by soaking shavings from its stems and inner bark in water. She drank some each day as a cleanser and restorative and also to ease her arthritis. Devils Club (Oplopanax horridus) has proven medicinal qualities and is also used as a tea and made into a general-purpose ointment. We usually returned from these interviews tired but invigorated by the information we'd obtained.

## The Importance of Subsistence

The survey confirmed our impression that most Sitkans, Tlingit and non-Native alike, were actively engaged in harvesting wild resources. Fishing was the most common activity. At least one person in 83 percent of Sitka's households fished, having gone out an average of 30 times during the previous year. More than three-quarters of Sitka's households had harvested wild plants -- berries, beach greens, roots, and mushrooms. Some people had also collected downed logs from the forest and drift logs from the beach to heat their homes. More than half of Sitka's households (56 percent) hunted, making an average of seven trips the previous year, usually in search of black-tailed deer. Sixty percent had harvested intertidal resources, collecting everything from clams, cockles, abalone, seaweeds, and kelp to sea cucumbers, urchins, scallops, limpets, and octopus. A few Tlingit families gathered seagull eggs from coastal shores. Many intertidal resources are traditional Tlingit foods, though a few, like seaweeds, were becoming increasingly popular with non-Natives. *Tlingit* means "people of the tide" or "low-tide activity people," according to the late Tlingit historian Mark Jacobs Jr. who also liked to say that, "When the tide is out, the table is set for the Tlingit people."

While some Sitkans were heavy resource users, others focused on a few activities and ignored the rest. An example of a heavy resource user was a fifty-five year old Tlingit man and his two adult sons. Together they had taken eight deer, a mountain goat, sea lion, and two seals during the previous twelve months. VIII They had caught their subsistence and sport limits of all five species of salmon which they smoked, dried, and canned. In addition, they had also caught ten halibut and approximately fifty Dolly Varden trout. From the intertidal zone they had collected four types of clams, gumboots, cockles, crab, herring eggs, and octopus, and had dried ten gallons of seaweed for household use. The family had also picked cloudberries, about ten gallons of blueberries, which they dried or preserved in seal oil, and about four times that amount of salmonberries and gray currants, which they ate both fresh and made into jam. They had also

harvested numerous greens, including goose tongue (a coastal plant), wild celery, wild rice, Hudson's Bay tea, and Devil's Club. Together the father and two sons had trapped an estimated \$5,000 worth of mink and otter. They also traded the herring eggs they had harvested for ribbon seaweed and euchalon (Thaleichthys pacificus) oil from Tlingit living in other communities.

By comparison, a non-Native couple in their early thirties, one a dentist and the other a bookkeeper, classified themselves as "moderate" users. In the previous year, they had shot a deer and a brown bear (using only the hide), and had also hunted unsuccessfully for mountain goat, ducks, and geese. They went out fishing about ten times, catching two pink salmon, one king, three halibut, and a few Dolly Varden trout and rock fish. While they had not collected any intertidal foods the previous year, unlike in the past, they had picked enough blueberries, salmonberries, red huckleberries, and strawberries to put up forty pints of jam. They had also gathered fourteen cords of wood from the beach which supplied all of their winter heat.

Subsistence activities are just as popular today as they were in 1983 at the time of our survey. Since 2012, I have brought student groups from the University of San Francisco to Sitka for a summer field course on "Culture and the Environment." Much of it focuses on subsistence and sustainability and has them talk to local residents and interview local resource specialists. Their findings, although less thorough or precise as the original survey, indicate that subsistence in all its forms—fishing, gathering, and hunting—is still important to large majorities of the population. One reason is easy access. "We live it every day," explained an employee in the town's planning office. "We have things [wild foods] right in front of us all the time. I can't even go out and take a picture for my work without walking on the tide flats and stepping on a starfish or something. Nature is around us all the time." Recreation is another reason for resource harvesting. Sitka is a fairly isolated place with limited leisure options. For many people, being in nature and harvesting wild foods is healthy and takes the place of other forms of entertainment.

## The Appeal of Subsistence

To better understand the appeal of various subsistence activities, we asked people to rank—on a 4-point scale from "very important" to "not important" -- the role that different motives played in their decision to either hunt, fish, or gather. The survey data, once again, reinforced what we were learning from causal conversations and participant observation. Harvesting, which can be physically demanding, brings pleasure. More people ranked their "enjoyment" of being outdoors and of engaging in specific harvesting activities as "very important" (80 and 72 percent respectively) than any other motive for engaging in subsistence. "One reason I like hunting so much," explained one man, "is that you walk really slowly. You walk ten times slower than you've ever walked before and that gives you a chance to see the scenery. You see a lot of animals that you'd not see otherwise. Deer hunting is really a high quality way to be out in the woods." According to another, "When I'm hunting, I am closest to being in harmony with my surroundings. I become part of the world. Some of the neatest things I've seen in life have happened when I'm out hunting. I once saw a wolverine beat up and chase off a black bear." A

woman who gathered both plant and intertidal resources said, "I like being busy without any stress. And I like the quiet of being out of town. I can do it for hours. I also like the fact that I get something out of it – the food as well as the pleasure."

On one trip with Nels, we spent a couple hours fishing managing only to catch some lingcod and bottom fish before we decided to motor to Redoubt Bay to dip net for salmon. Arriving there we discovered that the run was too small, so went ashore to pick salmonberries -- filling a five-gallon bucket, which we later found weighed 34 pounds, in about an hour and a half. We were childlike in our glee: "Wow, have you ever seen so many berries!" "Amazing!" "What a great day!" On the boat trip home, we tried to pinpoint what had given us so much pleasure and concluded it was the combination of discovering such a rich patch, being outside, and eating and enjoying the berries as we picked, knowing they were wholesome and free, and anticipating putting up a year's supply of jam.

Anyone who has spread salmonberry or huckleberry jam on toast or eaten fresh salmon or halibut will easily understand why the "taste of wild foods" was the next most frequently cited reason our survey respondents gave for subsistence harvesting; 68 percent considered it to be "very important." For Tlingit interviewees, the "taste of wild foods" ranked higher than any other motive for engaging in subsistence except, "it is part of my cultural background." Harvesting and eating wild foods is central to Tlingit culture and identity, and local Native groups conduct special subsistence harvests in order to provide them to their elderly. "Non-Natives don't understand how much these foods are a way of life," explained the head of the Sitka Native Education Program (SNEP). "Your body craves them. Herring eggs and other foods are a part of our culture. That's why we go to so much trouble to get them for the elders and to teach young people about them." "You can't buy smoked deer meat dipped in seal oil at Sea Mart [the supermarket]. You just can't," one man told us: "I consider it Tlingit soul food." Several Tlingit interviewees told us that their elders described eating wild foods as "eating the right way" or "the real way." Wild foods are also essential to Tlingit ceremonials. In 2015, a middle-aged Tlingit woman told me that she had been accumulating food for a future potlatch or memorial party and now had fifty gallons of dried seaweed and two freezers full--an estimated 800 pounds--of venison, fish, and herring eggs.

While it's difficult to explain exactly what makes "providing your own food" so profoundly gratifying, over half of the people we interviewed cited this as "very important" reason they harvested wild foods. "I enjoy being outdoors, but being *independent* is what it's all about," one deer hunter explained, adding, "If you knew everything there was to know about the natural resources we've got [in Sitka], you wouldn't have to go to the store at all." "I can't put it into words," explained a Tlingit man. "I just feel that I'm *home* when I'm using what's in the environment." One of the biggest rewards of my summer Culture and the Environment course is providing students with the opportunity to personally connect to nature through subsistence. The following comment from one student's journal, written during a camping and fishing trip on nearby Kruzof Island, captures some of the gratification and wonder she experienced.

Pulling the net out of the water and seeing I had caught a salmon was one of the most satisfying feelings. 'Yes, I did it. I caught my own food. I am physically putting food on the table to sustain myself and those around me.' .... [T]he sound of the sharp knife cutting down the center of the salmon, and the colorful soft fish eggs crowded in my hand before I tossed them back into the sea.... Once we grilled the salmon and were able to enjoy it for dinner as a group, the satisfying feeling from before came back again.

For many Sitkans, and this student, the act of drawing sustenance directly from nature and sharing its bounty with others is a deeply satisfying experience.

Many people also cited the "nutritional value of wild foods" as one of the main reasons they harvested. While few people probably knew the exact nutritional content of the wild foods they harvested, they did know that they were fresh and of high quality. A laboratory analysis of twenty locally-available wild foods instigated by Helen Hooper, a Sitka resident and nutritionist at Mt. Edgecumbe Native Hospital, concluded that Sitka's residents have a "nutritional gold mine" at their door step. Seaweeds, for example, are outstanding sources of minerals and vitamins; salmon and herring eggs are high in calcium; cockles are excellent sources of iron. From recent conversations and student surveys it appears that Sitkans today are even more aware of the nutrition value of wild foods.

"Lowering food costs" was another reason Sitkans engaged in subsistence, cited by 44 percent. This was especially true for hunting households. "Deer meat is important to our family," wrote one Tlingit teenager in his subsistence essay, "because it cuts down on the grocery bill and also takes the place of beef. A deer or a couple deer can last from three to six months in our family." According to our survey, hunting households had taken an average of 2.2 deer the previous year, yielding about 200 pounds of venison. Even harvesters who do not need to save money may be motivated in part by economics. "It's all free," a woman explained to me during an edible plants fieldtrip. "That's what I like about going out like this. It's like a garage sale, only better. That's what I like about beach combing too." When the cost of living rises or a household breadwinner loses a job, subsistence becomes even more important. "It's because of the increase in grocery prices," said a sixty year old woman explaining her involvement in subsistence. "I've been learning more, too. Last year I took classes on mushroom gathering and how to properly can food."

Limiting some of the economic benefits of subsistence, however, are the expenses of hunting and fishing: boats, fuel, licenses or permits, tackle, and ammunition. The cost of hunting, for example, depends upon where and how it is done. Chartering a plane to go deer hunting is expensive, although few households hunt this way. Most people hike into the muskeg to look for deer; some shoot them from their boats while they graze on seaweed on the beach in winter. Likewise, while some Sitkans own expensive cruisers, most people have modest boats which they use for transportation and recreation, as well as subsistence. The relative cost of fuel and gear also declines when people harvest multiple resources on the same trip. Sitkans who go

fishing for salmon in August and September often bring a rifle along in case they spot a deer. Hunters who use their boats to reach their preferred hunting locations typically bring along fishing gear and perhaps a crab pot, too. "Besides the deer," reported one man, "we often come back with fifteen beautiful Dungeness crabs." But as one Tlingit man told us, which is true for many people, "The money you spend on it, to harvest those things is not the overriding concern. It's an *emotional* tie to the land."

## Community and the Value of Sharing

One unexpected finding of our research was the amount of sharing that goes on. A third of the households we surveyed cited "sharing wild foods with others" as a very important reason they harvested. Fishers gave one-fifth of their catch away on average. Hunters gave venison to an average of three households in addition to sharing with their hunting partner. Intertidal and plant gatherers were less likely to share their harvest. Explaining why she rarely gave berries away, for example, one woman said, "They're like gold. A big halibut is a different story, but after spending three hours in the rain for a bucket's worth [of berries], you hang on to them." Elderly Sitkans and residents who cannot obtain their own supply of wild foods often receive them from others. A typical elderly woman received venison, fish, jam, and fresh berries every year from several neighbors. Wild foods are also given to community institutions and organizations such as the Pioneer Home, a state-supported retirement home for elderly Alaskans, and the Alaskan Native Brotherhood.

Serving harvested food for dinner is a matter of pride for many Sitkans. Halibut, smoked salmon, and more exotic fare like pickled shrimp are often taken to dinner parties in place of the bottle of wine common among the middle class in other parts of the country. Food both nourishes and signifies.<sup>x</sup> For some, serving wild foods signals their conservation, close-to-the-land ethos. For many Tlingit, wild foods are a routine part of group-sponsored dinners and community potlucks. At one event we attended, grilled halibut, deep fried rock fish, venison lasagna, chicken-of-the woods (a mushroom), abalone, goose tongue, and blueberry cobbler were on the table. Indeed, our research showed that sharing and communally eating wild foods is an activity that binds people together and is an important part of Sitka's collective identity.

## **Making Use of the Data**

Sitka remains one of the few large Alaskan communities for which good data about subsistence harvesting exists. Our findings clearly showed that subsistence harvesting was not restricted to rural villages and that it was *central* to the lives of many Alaskans, not just Alaskan Natives. A few years after the study, Sitka was re-classified as "rural" for the purpose of resource-use law. In 1992 a new state law identified "non-subsistence areas" – places in Alaska where subsistence fishing and hunting would *not* be permitted. Most were cities like Anchorage and Fairbanks, and in southeast Alaska, the capital of Juneau and the large community of Ketchikan. Because if its reclassification Sitka, despite its relatively large size and previous "urban" designation, was thus spared. "Your study [in Sitka] has been quite important over the years in the policy arena,"

James Fall, director of the ADFG's Subsistence Division, told me in a 2016 email. "I think it's safe to say that without the reliable early research in Sitka, these outcomes [protecting Sitkan's rights to subsistence harvesting] might have been different."

Food insecurity and undernourishment are serious problems in many parts of the globe today, including the United States. In the developed world, many practices of factory farming and the biotech food industry are putting the environment and our access to healthy food at risk. "The pathways our food takes from the land where it is grown to our bodies," notes Alaskan environmentalist Zachary Brown of southeast Alaska's Inian Islands Institute, "have become so convoluted (and secretive) that we need investigative journalists like Michael Pollan to reveal them to us." Our study pre-figured growing concerns about food quality, safety, and adequate supply. More people in the developed world today are buying local organically-grown food, planting home or community gardens, raising backyard chickens, and learning about wild foods. The Sitka research also revealed that subsistence activities have benefits and rewards beyond the provision of healthy food. Community is strengthened through the sharing of harvested foods as is the individual harvester's connection to place. When people use wild resources in this direct and very personal way, they also have a greater interest and stake in protecting them.

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i Anthropologist Adrian Tanner uses the term "self-provisioning" because "subsistence production," he believes, wrongly implies a bare bones existence – "an economic life without luxury." (See, "Eliminating the Middleman: Self-Provisioning and Food Security in Newfoundland and Labrador," unpublished paper, Department of Anthropology, Memorial University, Newfoundland, Canada) A Tlingit informant in Sitka similarly disliked the word subsistence because it connoted "low income and welfare," noting that "[t]he ANB doesn't care what income a person has. It's simply part of the Native lifestyle to use natural resources; to be close to nature."

ii Most resource harvesting in Alaska is regulated with different categories of users—commercial, sport, personal use, and subsistence—requiring the purchase of licenses or permits. These limit when, where, and how much of a particular species can be taken as well as type of gear that can be used, with some additional restrictions. Subsistence permits typically allow harvesters to take more than sport licenses, although vastly smaller amounts than commercial harvesters are permitted. Subsistence users sometimes have access to species that are off-limits to other users. ANILCA prioritized subsistence which means when fish or game populations are insufficient for all users, subsistence harvests are restricted last. ("Subsistence in Alaska: A Year 2010 Update," ADFG, Robert J. Wolfe and James A. Fall, 2012:1)

iii This was true under both state and federal law, and remains the case today for federal law. After 1989, all Alaskans, regardless of the size of the community they lived in, were allowed to engage in subsistence. But in 2000, parts of Alaska were declared "non-subsistence areas" by the state; most are large urban areas.

iv Its population in 1980 was recorded as 7,803, but the city planner thought it was closer to 8,200 since many people were missed in the census, including those living on boats. Today (2016), Sitka has a population of 8,881; 28 percent is Alaskan Native and other Native Americans.

<sup>&</sup>lt;sup>v</sup> Resource Use in a Small Alaskan City: Sitka, George Gmelch and Sharon Bohn Gmelch (with the assistance of Richard K. Nelson), Alaska Department of Fish and Game, Division of Subsistence, Technical Paper 90, 1985.

vi The surveys I had used in Ireland included one that was mailed to all 70 Itinerant Settlement Committees in the country; another was given to a convenience sample of 307 settled Irish to collect information on their interactions with and attitudes towards Travellers.

vii After determining how many households in each electoral district we needed to interview, I numbered that district's streets (always ten or fewer) and then placed ten numbered paper squares in a bowl. If I knew we needed to interview twenty households in a particular electoral district and I drew out the number 5, I knew we needed to interview four households on each of five streets. To determine which streets to go to, I placed the same number of squares in the bowl as the number of streets in the district and drew out five. Each interviewer took a map of his or her district(s) with the selected streets and number of target households marked in red, a packet of 50 numbered paper squares, and a large envelope. Arriving at a pre-selected street, he or she counted its houses, apartment units, and mobile homes or boats and placed that number of squares in the envelope, shook it, and drew out the needed number of households. If four households were needed and the numbers 4, 12, 20, and 25 were drawn, these were the homes the interviewer stopped at, walking down the right side of the street and then up the left.