The Subsistence Harvests of Wild Foods by Residents of Shungnak, Alaska, 2002

By
James S. Magdanz, Robert J. Walker,
and Ronald R. Paciorek

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James Magdanz: james_magdanz@fishgame.state.ak.us
Robert Walker: robert_walker@fishgame.state.ak.us

Abstract

Shungnak is a small *Iñupiaq* Eskimo community on the Kobuk River in northwest Alaska. Most of Shungnak's 248 residents depend substantially upon locally harvested wild foods for their subsistence. This report provides an estimate of subsistence harvests by Shungnak residents during calendar year 2002, and is the first comprehensive estimate of subsistence harvests on record for the community.

Data were gathered with a comprehensive subsistence harvest survey administered February 1-8, 2003, to 51 of 54 Shungnak households (a 94 percent sample). The survey included questions about the harvest of fish and wildlife by each household, the members of each household, the jobs held and income earned by each member of each household, and other information. Harvests were collected as numbers, then converted to edible pounds using standard conversion factors.

Analysis showed that residents of Shungnak harvested an estimated 151,911 pounds of edible wild food in 2002. The average harvests were 2,813 pounds per household and 610 pounds per person. Shungnak's average household harvest was similar to average household harvests estimated for other northwest Alaska communities during the past two decades.

Shungnak's harvest included 49 different species or species categories. The largest harvest of a single species was caribou. An estimated 403 caribou were harvested, providing 54,864 edible pounds or 36 percent of the total community harvest by weight. Humpback whitefish provided 40,615 pounds (27 percent), chum salmon 22,858 pounds (15 percent), sheefish 11,111 pounds (7.3 percent), and moose 5,696 (3.8 percent). Comparison with previous harvest estimates for selected species showed harvests in 2002 were generally lower than in 1993 (for birds), and 1998 (for land mammals).

Social network data showed extensive cooperation among households. In response to a series of social network questions exploring 16 different household support activities, the 51 sampled households reported 4,350 instances of household support. Of those, 2,521 instances were for wild food harvesting, processing, or distribution. The Shungnak network data were more extensive than those collected by a previous study in Wales and Deering. Shungnak households provided an average of 85 reports of household support activities, 49 of which were for harvesting, processing, and distribution. By comparison, households in Deering reported 22 instances of harvesting, processing, and distribution per household, and Wales reported 18 instances per household.

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Acknowledgments

This report was made possible by the support of the residents of Shungnak, who graciously answered hundreds of survey questions during a gray week in February. We appreciate your patience and your good humor during surveys that lasted, on average, more than an hour and sometimes two or three hours.

Caroline Tickett, Elaine Tickett, Gary Tickett, and Robert Waters administered surveys, providing the data without which this report would be impossible. The staff of the Shungnak IRA were especially helpful. President Frederick Sun and administrator Linda Lee supported the project from the initial proposal through survey administration to the final report. Lizzie Cleveland, Judy Lee, and Cheryl Mitchell promptly responded to all our requests, verified household lists, and made sure that local researchers got paid. Sherman Minter, principal of the Shungnak school, made the high school gymnasium available for a community meeting at the beginning of the project.

This project wouldn't have begun without the vision of Ken Adkisson, subsistence coordinator for the Western Arctic National Parklands of the National Park Service. NPS' Don Callaway gave the survey instrument his usual careful scrutiny, greatly improving the quality of the questions and the depth of the inquiry. NPS cultural anthropologist Eileen Devinney came to Shungnak, helped with the training session, and went door-to-door with the rest of us administering surveys, which is the only way to really know what the data from a survey project might mean.

For the Alaska Department of Fish and Game, Renee Foster, Ana Lewis, Kathleen Sherman, and Jim Simon kept the administrative wheels turning, the often invisible but essential work that prepares cooperative agreements for signature, codes invoices for payment, and processes travel claims for reimbursement. We were motivated in part by Jim Dau, who is always eager for good information, yet appreciative of the difficulties in gathering it. And as always, the nature of our research is constantly influenced by the good judgment and clear vision of Susan Georgette, who questions our ideas, challenges our hypotheses, tweaks our surveys, and edits our reports with a rare clarity of purpose.

I
Introduction

This report presents selected findings from a comprehensive community survey conducted in Shungnak, Alaska, in January, 2003, by the Alaska Department of Fish and Game, the National Park Service, and the Native Village of Shungnak. The survey was intended to document the subsistence harvests of wild foods by the residents of Shungnak, and to describe other social and economic aspects of the community. Additional findings from the survey will be available in a Community Profile Database maintained by the Alaska Department of Fish and Game.

This project was funded by the National Park Service's Western Arctic National Parklands, under a cooperative agreement with the Alaska Department of Fish and Game's Division of Subsistence. The Division of Subsistence, in turn, signed a cooperative agreement with the Native Village of Shungnak to conduct the surveys and review project reports.

Background

Shungnak is a small *Iñupiaq* Eskimo community on the Kobuk River in northwest Alaska, about 744 kilometers (462 miles) northwest of Anchorage (Figure 1-1). It is one of three communities on the upper Kobuk River. Ambler is located 40 kilometers (25 miles) northwest of Shungnak, downriver. Kobuk is located 12 kilometers (7 miles) east of Shungnak,

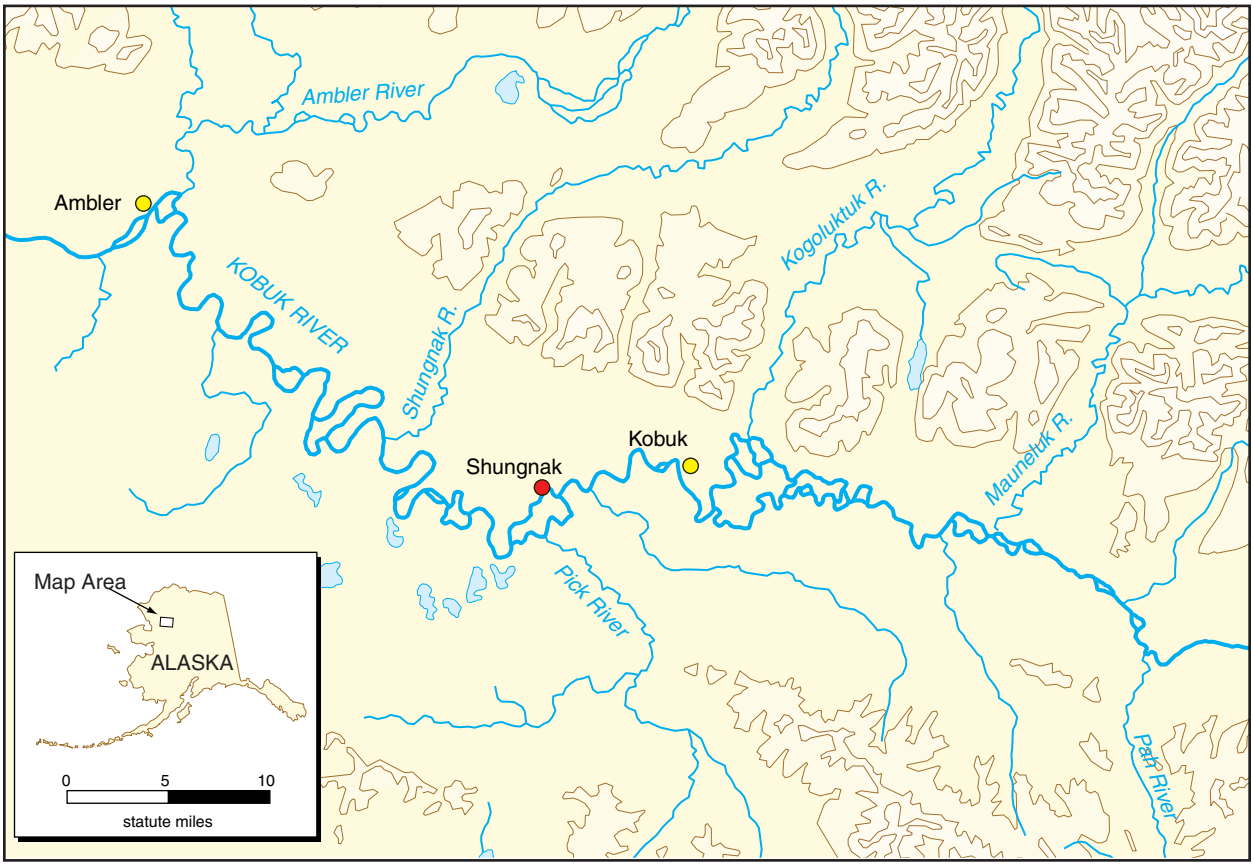

Figure 1-1. The upper Kobuk River, including the communities of Ambler, Shungnak, and Kobuk.

upriver. In the 2000 census, Shungnak reported 256 residents, Ambler 309, and Kobuk 109.

The Kobuk River flows entirely within the Northwest Arctic Borough, a political subset of the State of Alaska that encompasses 35,898 square miles, and also includes the Noatak River drainage, the Selawik River drainage, the Buckland River drainage, portions of the northern Seward Peninsula, and the coast northwest of Kotzebue. The Northwest Arctic Borough included 11 communities, with 7,208 residents. The residents of these communities are predominately Iñupiaq Eskimo, and the communities are sustained by a mixed cash-subsistence economy.

Ninety percent of the residents of the three upper Kobuk River communities were *Iñupiaq* Eskimo. In Shungnak, 94 percent were *Iñupiaq*. Almost all were descended directly from or related by marriage to members of a single society that inhabited the upper Kobuk River in the late nineteenth century, the *Kuuvaum Kaŋiaġmiut* (Burch 1998a:126). The *Kuuvaum Kaŋiaġmiut* occupied the Kobuk watershed from Ambler River upstream to the headwaters, an area of approximately 6,500 square miles including the Mauneluk, Pah, Selby, Beaver, and Reed rivers. They were semi-nomadic, moving seasonally to fish and hunt at various locations, returning usually to the same winter settlements. In addition to the upper Kobuk watershed, *Kuuvaum Kaŋiaġmiut* also ventured north into the upper Noatak watershed to hunt caribou and sheep.

Burch listed eleven *Kuuvaum Kaŋiaġmiut* settlements for 1870, with a total population of 624-680 people (Burch 1998a:137). The 19th century communities were further upriver than the 20th century communities, and they were gradually abandoned during the early 20th century. The inhabitants resettled in one of the three contemporary communities. Kobuk was founded in 1900 by miners who discovered gold in nearby streams, and by 1910 Kobuk's school, church, trading post, and mining employment had attracted 204 *Iñupiaq* residents. Shungnak was founded about 1927 by *Iñupiat* from Kobuk who were tired of persistent flooding that plagued the Kobuk site. Ambler was founded about 1957 by several *Iñupiat* families from Shungnak.

In 2000 the upper Kobuk was inhabited by 674 people. Interestingly, that was approximately the same number of people Burch estimated for 1870.

Regardless of where they settled along the upper Kobuk River, though, the *Kuuvaum Kaŋiaġmiut* considered the upper Kobuk to be their territory. Other than teachers and the occasional miner or trapper, few other people lived there, and fewer still stayed for more than a few years.

After the Alaska Native Claims Settlement Act (ANCSA) was passed by Congress in 1971, *Kuuvaum Kaŋiaġmiut* became minority land owners in their homeland. The federal government owned about 50 percent of the land; the state government about 40 percent. About 10 percent of the land in the area was private, owned by the NANA Regional Corporation – a native profit corporation created by the Alaska Native Claims Settlement Act to manage native lands and resources in northwest Alaska. Individuals owned less than 1 percent of the area, mostly as Native allotments.

Like other communities in the Northwest Arctic Borough, the cash sector of the local economy depended heavily upon government services like education and municipal government, and upon direct transfer payments to individuals like the Alaska permanent fund dividend. The Alaska Department of Community and Economic Development estimated that 52 percent of the adults in Shungnak were not working, and 36 percent of Shungnak's residents had incomes below federal poverty guidelines (2003).

Throughout the 20th century and into the 21st century, residents of Shungnak depended substantially upon the local harvest of wild foods, including caribou, salmon, sheefish, whitefish, and moose for subsistence. Subsistence hunting and fishing in the vicinity of Shungnak are managed by State of Alaska and by several federal agencies. In addition, NANA controlled access to extensive corporation lands in the area, granting free access to shareholders and their families, and granting permits to a handful of long-term non-Native residents. The National Park Service manages three conservation units in the vicinity of Shungnak: the Kobuk Valley National Park, the Noatak National Preserve, and the Gates of the Arctic National Park and Preserve. The U.S. Fish and Wildlife Service manages the Selawik National Refuge.

Management of fish and wildlife resources and control of access to local lands were critical issues

for Shungnak residents in 2003. Non-local, recreational use of the upper Kobuk has increased rapidly during the past 25 years. Except on NANA corporate lands and private allotments, they were unable to control access to the lands and use of the lands. This created conflicts between local residents and non-local hunters and sport fishermen (Georgette and Loon 1990; Magdanz 2000).

Under both state and federal law, subsistence uses have a priority over other consumptive uses of fish and wildlife. Providing that priority requires information about the nature and extent of subsistence use, some of which is provided by projects like this one. The Alaska Boards of Fisheries and Game use the harvest and other data to identify trends in local subsistence activities, and to evaluate proposals for regulatory changes. Communities, fish and game advisory committees, regional advisory councils, and individuals use the data to argue for changes to the regulations that would benefit their interests.

Section 809 of ANILCA authorizes the Secretary of the Interior to enter into cooperative agreements or otherwise cooperate with other Federal agencies, the State, Native Corporations, and other appropriate persons and organizations to effectuate the purposes and policies of Title VIII of ANILCA. Section 812 of ANILCA directs the Secretary, in cooperation with the State and other appropriate Federal agencies, to undertake research on fish and wildlife and subsistence uses on the public lands; seek data from, consult with and make use of, the special knowledge of local residents engaged in subsistence uses.

The project was planned in phases. In phase 1, researchers administered a comprehensive survey in the study community, analyzed the results, prepared this summary report for the community, and entered the results in the ADF&G Community Profile Database. Phase 2, as yet unfunded, would conduct an analysis of the production and distribution of wild foods in the study community, and produce a draft report of findings. Phase 3, also unfunded, would fund a technical paper summarizing the harvest and producer analyses conducted in Phases 1 and 2. Progress through the phases is dependent upon the availability of funding and progress through the previous phase or phases.

Purposes and Objectives

Under the cooperative agreement between the National Park Service and the Alaska Department of Fish and Game, the purposes of this project were to:

- Document the demography, economy, harvest, and distribution of wild foods in one community in northwest Alaska;
- Continue to demonstrate the feasibility of a cooperative, community-based harvest reporting system;
- Work cooperatively with Alaska Native organizations that will employ local researchers to help collect subsistence harvest information; and
- Provide opportunities for community and regional involvement in harvest reporting and wildlife management.

The objectives of this project were to:

- Publish a summary report of selected findings (this report);
- Enter the survey data into the Community Profile Database maintained by the Division of Subsistence;
- Conduct additional analyses of food production and distribution networks, and of other social networks; and
- Publish a final report on the wild food production and distribution system, including social networks, in Shungnak in 2002.

Literature Review and Rationale

Socioeconomic information is an important tool in the management of fish and wildlife resources, and especially subsistence uses of those resources. In 2002, comprehensive baseline harvest surveys were available for only four of the Northwest Arctic Borough's eleven communities (Deering, Kivalina, Kotzebue, and Noatak). Partial surveys – such as for salmon, large mammals, and migratory birds – existed for several other communities (Georgette et al 2003, Georgette 2000, Georgette 1999). Most of the communities lacked comprehensive socioeconomic data.

Previous research in the Kobuk area has been primarily ethnographic. Foote's recordings with Robert *Nasruk* Cleveland were the basis for an extensive collection of *Kuuvaŋmiut* legends (Cleveland 1980). NANA Elder's conference recordings were the

basis for a series of books published by the school district, documenting community histories and traditional stories (Lee et al 1990, Lee et al 1992, Mendenhall et al 1989). *Kuuvaŋmiut Subsistence* provided an encyclopedic study of Kobuk River subsistence practices in the 1970s, but no information about actual harvests (Anderson et al 1998). Nelson (1983), Giddings (1956, 1961, 1985), Ray (1975, 1983, 1984), and Burch (1975, 1980, 1984, 1988) have been the primary contributors to the ethnographic portrait of northwest Alaska Inupiat in general. Burch (1998a, 1998b) has described the *Kuuvaum Kaŋiaġmiut* in particular.

Burch, Jones, Loon, and Kaplan raised questions about the genesis of the *Kuuvaum Kaŋiaġmiut* (Burch et al 1999). They proposed that the *Kuuvaum Kaŋiaġmiut* were a Koyukon Athabaskan society as recently as 1850, and were assimilated rapidly and peacefully into *Iñupiaq* Eskimo society between 1860 and 1880. Their theory is based on place name data, and on early ethnographic observations by Nelson (1983), Stoney (1900), Curtis (1930), Sun (1985), and others. The ethnogenesis theory was not widely accepted among contemporary *Kuuvaum Kaŋiaġmiut* themselves. They thought the upper Kobuk may have been inhabited by *itkillich* ("Indians"), but they accepted the conventional view that *Iñupiat* pushed them out of the upper Kobuk. *Kuuvaum Kaŋiaġmiut* legends abound with stories of wars with Indians, which tended to support the conventional view.

The earliest written accounts of life on the upper Kobuk River date from 1884 and 1885, when Cantwell (1887, 1889) and Stoney (1900) conducted separate explorations of the region. Stoney's party spent the winter of 1885-86 living in a log cabin at the mouth of Cosmos Creek, about 10 miles below the community of Shungnak. Cantwell's and Stoney's accounts both provide views of the *Kuuvaum Kaŋiaġmiut* in a near pre-contact status. Stoney and his men traveled widely, into the Noatak valley and as far north as Point Barrow, providing an extensive record of conditions at the time.

The next accounts of life on the Kobuk date from 1900, when an estimated 1,000 gold prospectors spread out across the valley. Roberts' history of the Friends Church provides considerable detail from the missionaries' perspective (1978). Other accounts, such as those by Grinnell (1901) and Oman -- although focused on the central and lower Kobuk valley -- are useful in understanding conditions on the upper Kobuk in the early twentieth century.

The first formal ethnographic research in the area occurred in the 1940s, when archeologist J. Louis Giddings floated down the Kobuk River, and encountered Henry Stocking's family at the confluence of the Mauneluk and Kobuk rivers. His work continued in the area until his death in the 1960s. Giddings published accounts of *Kuuvaum Kaŋiaġmiut* life as recalled by four respondents, including a short account by Mike *Qakiq* Commack, who lived at the confluence of the Pah and Kobuk rivers (Giddings 1961), and an ethnographic portrait of the *Kuuvaum Kaŋiaġmiut* (Giddings 1956).

Georgette and Loon have documented contemporary subsistence practices, including those for brown bear and Dall sheep (Loon and Georgette 1989, Georgette and Loon 1991). Conflicts between local and non-local residents over fishing also have been described (Georgette and Loon 1990). Contemporary life on the upper Kobuk has been described in a series of popular and insightful accounts by an Ambler teacher, Nick Jans (1994, 1996).

Of all observers, Giddings was especially well situated to document conditions in the early 20th century. But he understandably was interested in documenting pre-contact conditions while knowledgeable informants were still alive. Magdanz conducted a series of oral history interviews with elder Shungnak respondents, documenting patterns of settlement and land use in the early twentieth century (Magdanz 2002). Magdanz' work and the NWAB School Districts work filled some, but by no means all, of the gaps in the 20th century history of the region.

This study provides the first statistical report on the full range of fish, wildlife, and plant harvests for an upper Kobuk River community. It also provides social and economic data, and social network data that have not been gathered previously.

2
Methods

This project used a comprehensive household survey to gather information about social and economic conditions in Shungnak during calendar year 2002. The survey asked the head or heads of each household questions about each household member's relationship to the head, age, birthplace; about the household's fish and wildlife harvests; about who harvested, processed, and distributed the wild food used by the household; about each household member's jobs and earnings; and about other income received by the household. Researchers attempted to survey all occupied Shungnak households. Surveys were completed for 51 of 54 households (a 94.4 percent sample).

The principal investigator was James Magdanz, a subsistence resource specialist with the Division of Subsistence of the Alaska Department of Fish and Game who has worked for the Division in northwest Alaska for 20 years. He was assisted by Ron Paciorek, a Division of Subsistence analyst programmer from Anchorage, Eileen Devinney, a cultural anthropologist with the National Park Service in Anchorage, and Linda Lee, the administrator of the Shungnak IRA. Robert Walker, who manages the Division of Subsistence's data management program, directed data analysis.

The survey instrument was based on a standard survey developed by the Division of Subsistence for similar studies in Alaska in the 1980s and 1990s. The instrument collected information from each household on demography, wild food harvests, subsistence and household support obtained through social networks, household member employment, and household income. The Shungnak survey is attached as Appendix 2.

The demography section included questions about the gender, kin relationships, age, birthplace, education, and ethnicity of each household member. The harvest section asked which wild foods were used and harvested, and how much was harvested by the household. The harvest section included 66 locally available species or species groups (e.g. berries). It also included 19 non-local species, such as seals, that were expected to be obtained through sharing, barter, and customary trade.

The employment section asked respondents to list each job held by each member of the household and, for each job, the months employed, the schedule worked, and the amount earned in the study year. A final page asked about other sources of household income, such as the Alaska Permanent Fund Dividend, social security, and other transfer payments.

Social network questions appeared throughout the survey. Near the beginning of the survey, respondents were asked, "Who helped your household with subsistence," and "Who helped your household in other ways?" After each category of resources (e.g. salmon, whitefish, birds), respondents were asked who harvested, processed, or distributed 14 categories of wild foods their household used. Near the end of the survey, respondents were asked who provided hunting and fishing information to their household, and who made hunting and fishing decisions for their household. Finally, they were asked who supported their household in other ways, such as child care and equipment maintenance. Similar questions were asked in a previous study of subsistence food production in the northwest Alaska communities of Wales and Deering (Magdanz et al 2002).

Confidentiality was maintained through the use of identification codes. Households and individuals were assigned numerical codes before the survey began. Code sheets were collected by the principal investigator after survey administration was completed, and remained in his custody. Codes sheets did not accompany the surveys when they were submitted for analysis.

Confidentially was especially important with the social network data, which identified people who provided subsistence and household support

to the respondent households. Again codes, not names, were entered on the survey instruments. When a person from outside the community was named in response to a social network question, his or her name was entered on a tear-off sheet and assigned a unique household-specific code on the spot. Non-local individuals who were named by several households usually had different codes on each surveys. The principal investigator collected all the tear-off sheets after survey administration, and recoded non-local individuals with uniform and unique codes.

For this report, the focus of data analysis was the demographic, harvest, and economic data. Preliminary analyses of social network data were conducted to evaluate the quality of the data set. More thorough analysis of network data was planned for the second phase of this project.

Procedures

In September, 2002, researchers attended a meeting of the Shungnak IRA Council, handed out copies of the draft survey instrument, and discussed the project goals. In November, 2002, the council adopted a resolution supporting the research (Appendix 1). Subsequently, researchers worked with the IRA staff to prepare an updated household-by-household census of the community. The IRA also began advertising for contractors to administer the survey. Shungnak residents Caroline Tickett, Eileen Tickett, Gary Tickett, and Robert Waters were selected to work with the project.

On January 30, 2003, Magdanz and Paciorek traveled to Shungnak. They held a public meeting in the high school gymnasium and discussed the project. The meeting was attended by about 30 people, who were asked to complete a two-page individual questionnaire. On January 31, Eileen Devinney traveled to Shungnak. On January 31 and February 1, Magdanz conducted two-day orientation meeting in the Shungnak National Guard armory, attended by all the local and non-local researchers. During the orientation, researchers verified lists of households and residents, reviewed species lists, reviewed procedures for coding producers, and practiced survey administration on one another. At the end of the orientation, each researcher selected a group of households to survey, and began making appointments by telephone and in person to conduct the surveys.

Surveys all were conducted in person, almost always in the respondent's home, at a time selected by the respondent. Surveys were administered to either the male or female head of household, who was asked to provide information about the household as a whole. Sometimes, both heads of household or other family members would assist the respondent by providing information. Surveys required from 15 minutes to 3 hours and 15 minutes (in one case) to complete. Average survey administration time was 1 hour and 15 minutes. Survey administration began the evening of February 1, 2003, and continued through February 8, 2003. At the conclusion of survey administration, researchers convened again for project evaluation meetings. They discussed the performance of the instrument, subjectively assessed the quality of the data gathered, and made suggestions to improve the survey process in the future.

After survey data had been analyzed and summarized, a draft copy of this report was provided to the Shungnak IRA Council, and circulated to project cooperators for review. In June 2004, the IRA Council approved the draft report without changes. A final report was prepared and printed.

Limitations and Assumptions

The harvest survey collected information on subsistence activities during the calendar year 2002. This assumed that respondents could remember their important activities during the past year. To minimize recall problems, surveys were conducted with household heads on the assumption that household heads were most likely to be aware of all household members' activities. Respondent recall bias was not expected to change significantly over time or from community to community. It was not expected to affect comparisons of data from this study with other studies employing similar methods.

One function of the agencies involved in this study was to enforce fish and wildlife regulations. None of the researcher in this project was involved in enforcement activities. Nonetheless, some residents of northwest Alaska perceived any wildlife agency employee as a "game warden." The week before the study, a Shungnak elder killed several caribou just behind Shungnak. The animals were close to his

home, and he didn't take his hunting pack, which carried his lifetime hunting license. A game warden was in the area, saw the kill from the air, landed on the elder, and gave him a warning for not having his license on his person. Another hunter in Shungnak was also contacted by a warden about the same time, though the details of that encounter were less clear. The elder agreed to be surveyed for this project, and was surveyed by Magdanz, the project leader. The other hunter declined to be surveyed.

Some respondents were reluctant to provide information about personal and household incomes, in particular about earned income. One of the researchers was personally reluctant to ask respondents about employment and income. The result, unfortunately, was that employment and income data were missing for 42 percent of the individuals in the sample.

Standardization in data collection procedures was important because seven different people gathered data for this project. The principal investigator was present throughout the administration of the survey and administered surveys himself. Standardization and quality control were accomplished through the initial orientation process, daily reviews of surveys as completed, and post-administration review of all surveys. The principal investigator coded all of surveys for data entry.

The principal analyst-programmer left the Division of Subsistence after data entry was completed, but before data analysis was completed. Final analyses for this summary report were conducted by the Division's senior analyst-programmer and by the principal investigator. The production of final SPSS system files and the addition of these data to the Community Profile Database were delayed by this change of personnel.

Data Analysis

Survey data were entered twice, and compared programmatically for inconsistent data entry. Double data entry ensures more accurate transfer of information from the coded survey forms into the database. Data did not pass to the processing phase until inconsistencies between the twice-entered data set were eliminated. Range and logic checks were also performed on the data to highlight potential data inconsistencies. Identified records were verified for accuracy by consulting the original survey forms.

Subsistence harvest estimates may be calculated based upon the application of weighted means (Cochran 1977). These calculations are standardized methods for extrapolating subsampled data.

The estimated sample mean take per village is:

$$\theta_S = \sum_{i=1}^{K} N_i \theta_i / N$$

Where:

i = strata variable
1 - K = the numbered designation of strata i
N_i = strata i population
θ_i = mean harvest per household within strata i
N = village population

The estimated village sample variance is

$$\mathrm{Var}(\theta_S) = \sum_{i=1}^{K} N_i^2 \mathrm{Var}(\theta_i)((N_i - n_i)/(N_i - 1)) / N^2$$

Where:

n_i=sampled households in strata i
Var = variance

The estimated standard error (SE) of θ_S is the square root of Var (θ_S).

The village harvest can be estimated by

$$T_s = N \theta_S$$

with estimated standard error

$$SE(T) = N \cdot SE(\theta_S)$$

For the Shungnak project, a single sampling strata (i.e., an attempted census which was considered equivalent to a simple random sample) was used for the community.

Summary statistics other than harvest estimates were calculated with the Statistical Program for the Social Sciences (SPSS).

Social network data were analyzed using SPSS and Ucinet, a program designed for social network analysis (Borgatti et al 2002). Each response to a social network question was entered as a separate record in SPSS. Each record included variables identifying the respondent household, the role of the person (e.g. harvester, processor, child care

provider), and the identification code of the person providing the food or support. These variables did not measure the amounts of food or other support provided. Respondents were asked how much their household harvested, but were not asked to account for those harvests on a person-by-person basis.

The SPSS crosstabs procedure was used to create a 51-by-51 matrix of Shungnak households, in which each cell was a count of the number of times a particular household was identified as a source of support for each respondent household. The matrix, sorted by household number, appears in Appendix 2. The matrix was read into Ucinet, normalized, and displayed in NetDraw.

3
Findings

The 51 households surveyed in Shungnak reported harvesting 143,441 edible pounds of wild foods between January and December, 2002. The average harvest per household was 2,813 pounds; the average harvest per person was 610.4 pounds. Expanding for three unsurveyed households, Shungnak's estimated total harvest of wild foods in 2002 was 151,911 pounds (± 8.7 percent).

Caribou accounted for the largest harvest of a single species, with 403 animals taken for a total harvest of 54,864 pounds, 36 percent of the total community harvest of wild foods (Figure 3-1). The largest harvest of a species category, though, was of fish. Fish contributed 84,340 pounds, or 54 percent of the total community harvest. A majority of the fish were whitefish, 47,030 pounds, or 31 percent of the total. Salmon contributed 22,942 pounds, or 15 percent of the total.

This chapter summarizes some findings from the household survey, including demographic characteristics, responses to harvest assessment questions, harvest estimates, employment, income, and social networks. Harvest numbers are expanded estimates. More detailed tables of results appear in Appendix 2. Additional information from this survey will be available in the Division of Subsistence Community Profile Database.

Demographics

The 51 sampled households included 235 people, of whom 221 (94 percent) were Alaska Native. The population included 103 males (44 percent) and 132

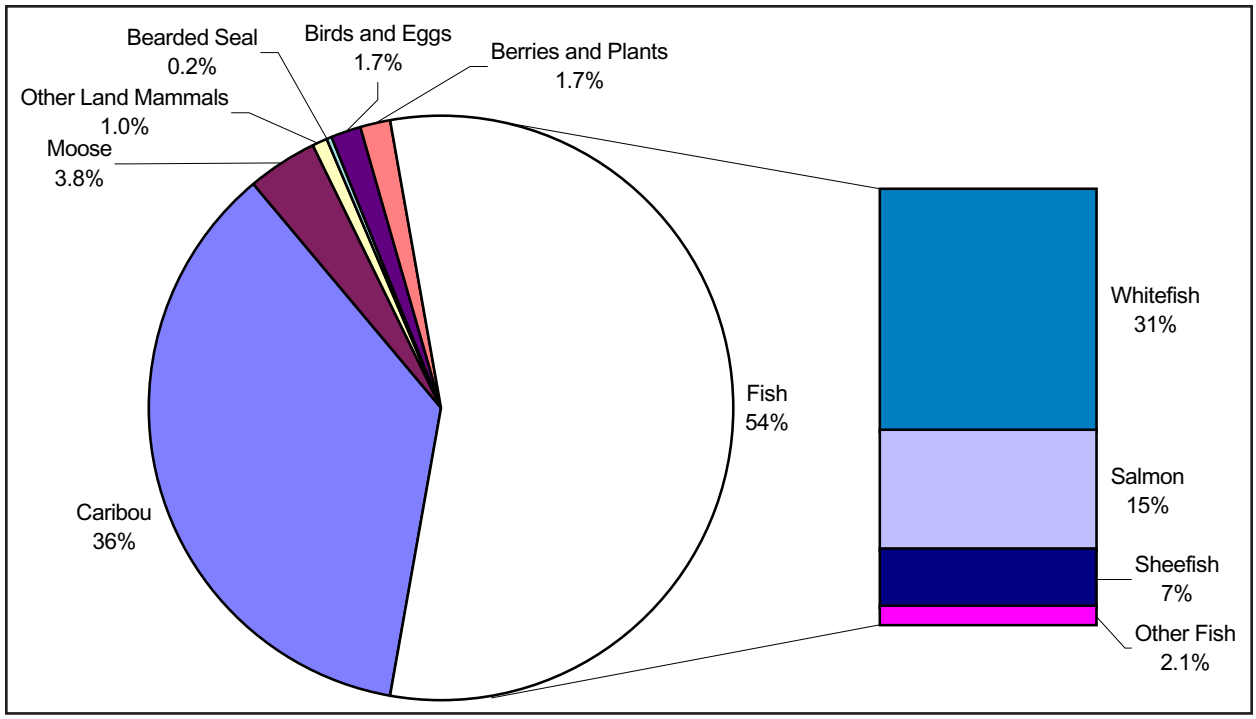

Figure 3-1. Composition of subsistence harvest, Shungnak, 2002. Fish accounted for 54 percent of the total estimated harvest in Shungnak in 2002, while land mammals contributed about 41 percent. Caribou contributed more than any other single species, accounting for 37 percent of the total harvest, followed by whitefish with 31 percent.

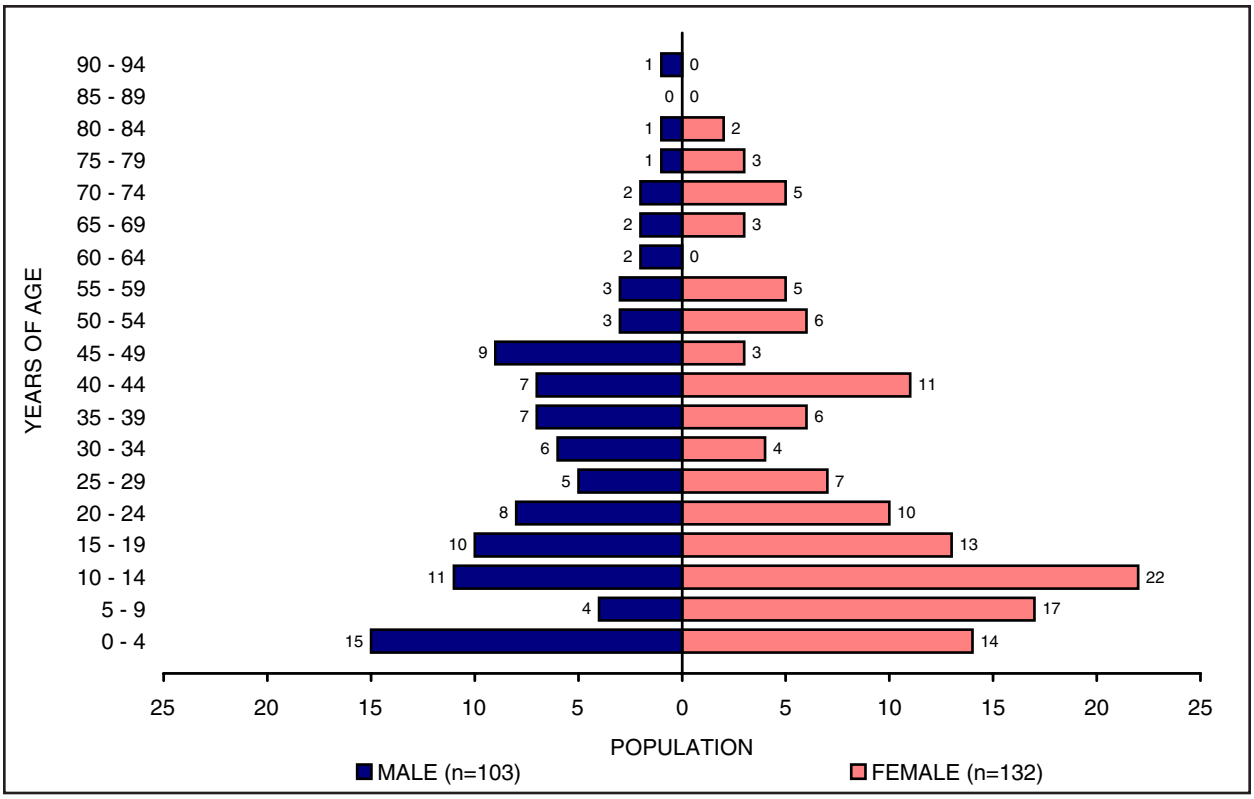

Figure 3-2. Population profile by age and sex, Shungnak, 2002. (Figure does not include 9 males with missing ages.)

females (56 percent) (Figure 3-2). The project's pre-survey census of the community estimated 5 males and 8 females in the three unsurveyed households, for a total population of 248 people in 54 households. As a comparison, the 2000 census reported 256 people in 56 households.

In the early 1990s, Hamilton and Seyfrit observed higher emigration rates for young women in small communities in the Northwest Arctic Borough. They found that in the 15-39 age group there were 113 men for every 100 women, and in Shungnak the ratio was 148:100 (Hamilton and Seyfrit 1993:261-262). The 2000 census reported a 103:100 ratio in Shungnak. By 2002, the ratio had reversed, to 78:100 for all ages, and to 90:100 in the 15-39 age group.

Two thirds of the population was born in Shungnak, 149 of the 221 residents (67 percent). Only slightly fewer reported Shungnak as their mother's natal community (62 percent) or as their father's natal community (63 percent). Consistent with these reports, 62 percent said they had never lived in any community other than Shungnak.

Other than Shungnak, the community of birth reported most often was Selawik, named by 6.8 percent of the current residents. A similar proportion (6.3 percent) reported birthplaces outside Alaska; these were mostly teachers. Most of the remaining residents were born in other rural northwest communities; most of the Northwest Arctic Borough communities were represented. Only 4.1 percent reported Anchorage or Fairbanks as their birthplace.

Level of formal education was reported for 219 respondents (93 percent of the population). Of those 219 people, 10 percent reported formal education beyond high school. Twenty six percent reported having completed high school or earned their G.E.D. Twenty two percent reported some formal education, but did not earn a high school degree. The remaining 42 percent were still continuing their education.

On the average, residents had lived in Shungnak for 22.7 years. Considering only Alaska Natives, average residency was 23.9 years, compared with 2.7 years for non-Alaska Natives.

Wolfe has categorized households by social type based on the age of household heads (Magdanz et al 2002:60). Developing households were those in which both heads were 39 years old or younger. Mature households were those with the oldest head

TABLE 3-1. USE AND HARVEST OF WILD FOODS BY SPECIES CATEGORY, SHUNGNAK, 2002.

	Fish and Shellfish	Land Mammals	Marine Mammals	Birds and Eggs	Plants	All Resources
Number of Wild Food Species or Species Categories						
Included on Survey	24	22	9	27	3 *	85
Locally Available	16	20	0	27	3	66
Reported as "Used"	17	19	4	18	3	61
Reported as "Attempted to Harvest"	15	17	2	19	3	56
Reported as "Harvested"	15	14	1	16	3	49
Reported as "Received"	14	14	4	16	3	51
Reported as "Given Away"	13	14	4	13	3	47
Percentage of Households						
Reporting "Used"	92 %	98 %	71 %	78 %	96 %	100 %
Reporting "Attempted to Harvest"	86 %	69 %	4 %	65 %	92 %	100 %
Reporting "Harvested"	86 %	69 %	2 %	63 %	92 %	100 %
Reporting "Received"	84 %	86 %	71 %	53 %	45 %	98 %
Reporting "Given Away"	71 %	53 %	24 %	37 %	39 %	80 %
Estimated Pounds of Wild Foods Harvested						
Total for Community	84,340	62,012	373	2,657	2,529	151,911
Average per Household	1,562	1,148	7	49	47	2,813
Average per Person	339.0	249.2	1.5	10.5	10.2	610.4

* Survey also asked about firewood. This table includes only edible species.

between 40 and 59 years old. Elder households were those in which one or both heads were 60 years old or older. Single person households were grouped into a single category regardless of age.

In Shungnak in 2002, there were 11 developing households (22 percent), 23 mature households (45 percent), 11 elder households (22 percent), and 6 single-person households (12 percent).

Harvests

The household survey collected information about the harvest and use of 85 different edible wild food species or categories of species, and about the harvest of firewood. Respondents were asked whether their household used, attempted to harvest, or harvested each resource during the study year. For each resource, they were asked if their household received the resource from another person or household, and if they gave away each resource to another person or household.

If they harvested a resource, they also were asked how much they harvested and, for fish, how much was harvested by each type of gear (seine, gill net, etc.). Finally, for eight categories of wild foods, they were asked to compare harvests in the study year with harvests in the past, and to assess whether or not the study year's harvest was "enough."

This section summarizes the answers to these questions. The tables in Appendix 2 provide additional detail on responses to these questions for all 86 resources.

Table 3-1 and Table 3-2 summarize responses to the harvest questions on the survey. Table 3-1 aggregates responses into five categories, while Table 3-2 summarizes responses for each resource. In Table 3-2, resources are ranked in descending order of edible pounds harvested within each category.

Of the 85 edible wild foods on the survey, 19 species were not locally available, but were likely to be obtained through sharing, barter, or trade. These included whales, seals, marine fish, and shellfish. Of the 66 species locally available for harvest, 61 were reported as used, 56 were reported as attempted to harvest, and 49 were actually harvested (Table 3-1).

The most commonly used species was caribou, reported as "used" by 98 percent of the households and harvested by 67 percent (Table 3-2). Berries

TABLE 3-2. USE AND HARVEST OF WILD FOODS BY SPECIES, SHUNGNAK, 2002.

	Percentage of Households			Number Harvested		Pounds Harvested			Conversion	95% Conf Limit
	Used	Attempted to Harvest	Harvested	Community Total	Average Per Household	Community Total	Average Per Household	Average Per Person	Factor (n to lbs)	Community Total
Wild Foods Harvested in 2002										
Fish										
Humpback Whitefish	84%	67%	65%	19,340	358.2	40,615	752	163.2	2.1	± 10%
Chum Salmon	76%	59%	57%	3,810	70.5	22,858	423	91.9	6.0	± 14%
Sheefish	84%	63%	65%	2,020	37.4	11,111	206	44.7	5.5	± 12%
Broad Whitefish	45%	25%	22%	1,744	32.3	5,580	103	22.4	3.2	± 20%
Pike	35%	33%	31%	598	11.1	1,974	37	7.9	3.3	± 20%
Least Cisco	10%	6%	4%	428	7.9	749	14	3.0	1.8	± 47%
Burbot	49%	31%	29%	114	2.1	480	9	1.9	4.2	± 14%
Grayling	35%	29%	29%	442	8.2	397	7	1.6	0.9	± 12%
Dolly Varden	47%	45%	39%	95	1.8	314	6	1.3	3.3	± 11%
Round Whitefish	8%	8%	4%	108	2.0	76	1	0.3	0.7	± 46%
Pink Salmon	2%	2%	2%	35	0.6	73	1	0.3	2.1	± 47%
Sucker	10%	10%	8%	86	1.6	60	1	0.2	0.7	± 31%
Smelt	2%	2%	2%	212	3.9	30	1	0.1	0.14	± 47%
Unknown Whitefish	4%	6%	2%	5	0.1	11	0.2	0.04	2.0	± 47%
Coho Salmon	2%	2%	2%	1	0.0	6	0.1	0.02	5.2	± 47%
Sockeye Salmon	10%	4%	2%	1	0.0	5	0.1	0.02	5.0	± 47%
Land Mammals										
Caribou	98%	67%	67%	403	7.5	54,864	1,016	220.5	136	± 8%
Moose	73%	39%	16%	11	0.2	5,696	105	22.9	538	± 17%
Beaver	41%	29%	24%	52	1.0	953	18	3.8	18.4	± 14%
Black Bear	39%	16%	4%	2	0.0	186	3	0.7	88	± 33%
Snowshoe Hare	12%	8%	8%	32	0.6	111	2	0.4	3.5	± 33%
Porcupine	31%	24%	20%	14	0.3	110	2	0.4	8	± 15%
Brown Bear	16%	10%	2%	1	0.0	91	2	0.4	86	± 47%
Red Fox	6%	4%	4%	5	0.1	(harv ested for fur)				± 34%
Land Otter	4%	8%	2%	2	0.0	(harv ested for fur)				± 47%
Lynx	12%	10%	6%	3	0.1	(harv ested for fur)				± 27%
Marten	4%	2%	2%	2	0.0	(harv ested for fur)				± 47%
Muskrat	12%	10%	6%	19	0.4	(harv ested for fur)				± 28%
Wolf	18%	20%	12%	7	0.1	(harv ested for fur)				± 19%
Marine Mammals										
Bearded Seal (juvenile)	63%	2%	2%	2	0.0	373	7	1.5	176	± 47%
Birds										
Canada Geese	53%	47%	43%	218	4.0	746	14	3.0	3.42	± 10%
White-fronted Geese	43%	37%	35%	148	2.7	629	12	2.5	4.24	± 11%
Northern Pintail	45%	37%	33%	187	3.5	294	5	1.2	1.57	± 12%
Ptarmigan	47%	39%	37%	264	4.9	264	5	1.1	1.00	± 15%
Long-tailed Duck (Oldsquaw)	43%	33%	31%	139	2.6	186	3	0.7	1.34	± 14%
Mallard	41%	31%	31%	94	1.7	184	3	0.7	1.95	± 14%
Scoter	25%	24%	20%	58	1.1	98	2	0.4	1.69	± 16%
Unknown Ducks	12%	8%	8%	43	0.8	82	2	0.3	1.88	± 35%
Snow Geese	10%	8%	6%	12	0.2	46	1	0.2	3.99	± 30%
American Wigeon	18%	18%	10%	26	0.5	35	1	0.1	1.31	± 23%
Emperor Geese	4%	4%	2%	6	0.1	29	1	0.1	4.64	± 47%
Northern Shoveler	8%	6%	4%	18	0.3	20	0	0.1	1.09	± 42%
Spruce Grouse	12%	10%	10%	14	0.3	14	0.3	0.1	1.00	± 23%
Brant	6%	4%	2%	3	0.1	7	0.1	0.03	2.28	± 47%
Loons	2%	2%	2%	1	0.0	6	0.1	0.02	5.44	± 47%
Scaup	4%	4%	2%	11	0.2	18	0.3	0.1	1.68	± 47%
Plants										
Berries	94%	84%	84%	365 g.	6.8 g.	2,374	44	9.5	6.5	± 8%
Roots	33%	20%	18%	25 g.	0.5 g.	102	2	0.4	4.0	± 17%
Plants/Greens/Mushrooms	25%	18%	16%	53 g.	1.0 g.	53	1	0.2	1.0	± 32%
Species Used but Not Harvested in 2002										
Bowhead Whale	47%	2%	0%							
Belukha Whale	16%	0%	0%							
Wolverine	12%	16%	0%							
Chinook Salmon	10%	0%	0%							
Ringed Seal	8%	0%	0%							
Halibut	2%	0%	0%							
Dall Sheep	2%	0%	0%							
Arctic Fox	2%	4%	0%							
Arctic Hare	2%	2%	0%							
Mink	2%	0%	0%							
Seal Oil (species unknown)	2%	0%	0%							
Canvasback	2%	4%	0%							

NOTES: Respondents were asked to report the number of fish and wildlife harvested, except for plants which were reported as gallons. For species harvested in large numbers, such as whitefish, harvest were reported as washtubs, buckets, and sacks. Unorthodox units were converted to numbers using a species-specific conversion table for unorthodox units. Harvest numbers were converted to edible pounds using standard conversion

were used by 94 percent of the households, and harvested by 84 percent. Humpback whitefish and sheefish were used by 84 percent of the households, and harvested by 65 percent.

Eight species accounted for 95 percent of the total harvest. After caribou, the seven species contributing the most to Shungnak's harvests were: humpback whitefish, (40,615 pounds), chum salmon (22,858 pounds), sheefish (11,111 pounds), moose (5,696 pounds), berries (2,374 pounds), and northern pike (1,974 pounds). No other species contributed more than 1,000 pounds to the total.

In many of Alaska's riverine communities, salmon are the dominant species. That is not the case in Shungnak, where whitefish (humpback whitefish, round whitefish, broad whitefish, least cisco, and sheefish) play a major role. In 2002, the combined whitefish harvest (58,141 pounds) was more than two and a half times that of the salmon species (22,942). Most whitefish were taken in the fall, and air dried. Broad whitefish were taken in November, most commonly, and were stored frozen in the round. Sheefish were taken in the summer and fall and usually were stored frozen.

Seine nets, used extensively for harvesting humpback whitefish in the fall, accounted for 74 percent of the whitefish harvests, by weight. Rods and reels, used for harvesting sheefish during their upstream migration in July, accounted for 48 percent of the sheefish harvest and 10 percent of the whitefish harvest. Gill nets accounted for only 13 percent of the whitefish (sheefish caught in salmon nets in summer and fall, broad whitefish caught with gill nets set under the ice in November, and humpback whitefish caught in gill nets in the spring).

For salmon, though, gill nets were more productive, accounting for 73 percent of the salmon harvest. Seines took 25 percent of the salmon, by weight. For all the rest of the fish, gills nets accounted for 55 percent of the harvest, followed by rods and reels with 21 percent, and jigging through ice (for burbot, primarily with 17 percent.

Caribou were by far the largest source of red meat for Shungnak, accounting for 90 percent of the large land mammal harvest. Moose accounted for 9 percent of the large land mammal harvest. Bear contributed less than 1 percent.

Relatively few furbearers were reported on the survey, seven wolf and no wolverine. Although lynx populations were near record highs in 2002, only three lynx were reported. The data suggested that Shungnak residents were harvesting furbearers for local use primarily, and not for the fur trade. Anecdotal information suggested that furbearer reports may have been incomplete.

One of the most commonly used species (reported as "used" by 63 percent of the households) was a species not locally available, bearded seal. Bearded seal was harvested by only one household (which had relatives living in Shishmaref). Other households obtained their bearded seal meat and oil through sharing, barter, or customary trade. Dried bearded seal meat in oil is a highly valued traditional food, *niġipiaq*.

The waterfowl harvest (2,292 pounds) was approximately equally apportioned among Canada geese, white-fronted geese, and ducks (pintail, mallard, and long-tailed ducks). The only resident bird harvested in any quantity, ptarmigan, accounted for 264 pounds.

The survey asked about berries in the aggregate, and did not collect amounts by species. Respondents most commonly mentioned harvesting blueberries, cranberries, and salmonberries. The greens harvest included willow leaves, wild rhubarb, and sourdock. The root harvest was Eskimo potato.

Twelve species were reported as used, but not harvested. More than half the households (53 percent) reported using whale, either bowhead (47 percent) or beluga (18 percent), or both, all obtained through sharing, barter, or customary trade. About half of the used but not harvested species were reported by only one household.

Harvest Comparisons and Assessments

Responses to the comparison and assessment questions indicated that the harvest in 2002 was generally better than it had been in the past (Table 3-3). For seven of the nine categories, at least 50 percent of the respondents said their household had harvested the same as or more than they had in previous years. Harvest assessments were most positive for large land mammals, with 49 percent of the households reporting more harvested, and 31 percent reporting the same harvests as in the past. Forty nine percent of the households also reported harvesting more fish

TABLE 3-3. HOUSEHOLD'S ASSESSMENTS OF HARVESTS, SHUNGNAK, 2002

	"How Did Harvest This Year Compare to Past?" (Percentage of Households)					"Did HH Get Enough?" (Percentage of Households)		
	"Less"	"Same"	"More"	"Never Harvest"	No Response	"Yes"	"No"	No Response
Fish								
Salmon	22%	37%	31%	6%	4%	33%	57%	10%
Whitefish	18%	29%	37%	8%	8%	16%	71%	14%
Other Fish	16%	18%	49%	16%	2%	25%	71%	4%
Shellfish	82%	0%	4%	0%	14%	31%	35%	33%
Mammals								
Large Land Mammals	12%	31%	49%	6%	2%	16%	80%	4%
Small Land Mammals	43%	20%	24%	2%	12%	31%	51%	18%
Marine Mammals	75%	2%	14%	0%	10%	22%	63%	16%
Birds								
Geese, Ducks, and Other Birds	22%	33%	29%	6%	10%	29%	59%	12%
Plants								
Berries, Greens, and Roots	2%	33%	43%	12%	10%	18%	71%	12%

(other than salmon or whitefish), while 18 percent reported harvesting the same. Whitefish and salmon harvests were also good, with more than two thirds of the households reporting harvests better than or similar to harvests in the past.

Harvest assessments were most negative for small land mammals and for marine mammals. Twenty four percent harvested more small land mammals and 20 percent harvested the same amounts, while 43 percent reported harvesting less. The marine mammal assessment was interesting. Seventy five percent said their marine mammal harvests were "less" than in the past. Given Shungnak's location 150 miles from the ocean, one would have expected at least some households to report "never harvest" for marine mammals, but none did.

Respondents also were asked whether their households had been able to get "enough" of the same nine different categories of species. Responses were decidedly pessimistic; on average two thirds of the responses were "No." Eighty percent of the households said they had not been able to get enough large land mammals, although 80 percent of the households also said they had harvested either more or the same amount of large land mammals in the past.

Jobs and Income

Of the 130 adults in Shungnak in 2002, 43 adults (33 percent) reported holding at least one job at some time during the study year, while 17 adults (13 percent) reported being retired (Table 3-4). Fifteen (12 percent) considered themselves to be unemployed. However, the jobs and income data were the least complete data set on survey.

At least one of the local survey workers seemed very reluctant to gather job and income data, and some respondents were reluctant to provide it. There was no employment data for 55 adults (42 percent), which was unfortunate. Nonetheless, average, minimum, and maximum employment values were still informative.

Table 3-4 summarizes these values for men, women, and Alaska Natives. The total income reported from employment in Table 3-4 should be considered as incomplete. Respondents reported holding, on average, 1.2 jobs per person, with a maximum of 4 jobs. Many respondents held seasonal jobs, as the average months worked was only 4.3 months per year.

Alaska Native residents accounted for 82 percent of the months worked, but only 71 percent of the earned income. This reflected the higher incomes earned by teachers, who worked full time and (in many cases) had advanced college degrees, including one Ph.D. High wages were also paid on some construction jobs, but these tended to be more seasonal than education jobs.

The school in Shungnak was funded by the Northwest Arctic Borough, through tax receipts

TABLE 3-4. EMPLOYMENT CHARACTERISTICS, SHUNGNAK, 2002.

	Men		Women		Alaska Native		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All Adults								
Employed	18.0	*13.8%*	25.0	*19.2%*	39.0	*30.0%*	*43.0*	*33.1%*
Unemployed	5.0	*3.8%*	10.0	*7.7%*	15.0	*11.5%*	*15.0*	*11.5%*
Retired	6.0	*4.6%*	11.0	*8.5%*	17.0	*13.1%*	*17.0*	*13.1%*
Missing Data	29.0	*22.3%*	26.0	*20.0%*	45.0	*34.6%*	*55.0*	*42.3%*
Total Adults	58.0	*44.6%*	72.0	*55.4%*	*116.0*	*89.2%*	***130.0***	***100.0%***
Number of Jobs Reported								
Per Household		--		--		--		--
Mean	1.3	--	1.1	--	1.2	--	1.5	--
Minimum	1.0	--	1.0	--	1.0	--	1.0	--
Maximum	4.0	--	4.0	--	4.0	--	4.0	--
Per Employed Person		--		--		--		--
Mean	1.3	--	1.1	--	1.2	--	1.2	--
Minimum	1.0	--	1.0	--	1.0	--	1.0	--
Maximum	4.0	--	4.0	--	4.0	--	4.0	--
Total Jobs in Community	63.0	--	71.0	--	120.0	--	134.0	--
Number of Months Employed								
Per Household		--		--		--		--
Mean	5.4	--	5.4	--	5.2	--	5.4	--
Minimum	0.0	--	0.0	--	0.0	--	0.0	--
Maximum	12.0	--	12.0	--	12.0	--	12.0	--
Per Employed Person		--		--		--		--
Mean	4.1	--	4.4	--	4.0	--	4.3	--
Minimum	0.0	--	0.0	--	0.0	--	0.0	--
Maximum	12.0	--	12.0	--	12.0	--	12.0	--
Total Months of Employment		--		--		--		--
Income from Employment								
Per Household		--		--		--		--
Mean	9,300.67	--	10,447.57	--	8,321.29	--	9,950.12	--
Minimum	0.00	--	0.00	--	0.00	--	0.00	--
Maximum	63,204.00	--	95,000.00	--	70,000.00	--	95,000.00	--
Per Employed Person								
Mean	6,975.50	--	7,794.22	--	5,943.78	--	7,440.18	--
Minimum	0.00	--	0.00	--	0.00	--	0.00	--
Maximum	63,204.00	--	95,000.00	--	70,000.00	--	95,000.00	--
Total Income from Employment	334,824.00	--	491,036.00	--	582,490.00	--	825,860.00	--

from the Red Dog Mine near Kivalina and through state and federal education funding. Public funds also were the primary support for jobs in the City of Shungnak and the Native Village of Shungnak. The Alaska Village Electrical Cooperative employed several part-time people to operate and maintain the electrical generation system. The Alaska Native Industries Cooperative Association employed several people in the local Native store.

During the study year, seasonal work was available during the construction of seven new houses. That project was funded by the Northwest Iñupiat

TABLE 3-5. NETWORK ROLES BY HOUSEHOLD AND BY COMMUNITY, SHUNGNAK, 2002.

	Shungnak		Other Communities																
	Own Household	Another Household	Ambler	Anchorage	Barrow	Buckland	Fairbanks	Homer	Kiana	Kivalina	Kobuk	Kotzebue	Nome	Noorvik	Point Lay	Selawik	Shishmaref	Total
Role of Person in Subsistence Network																			
WIld Food Harvester	390	599	4	3	7		7				15	19	2	2		2	6	1,056
Wild Food Processor	416	466	1	6	7		3				4	16	2				1	922
Wild Food Distributor		443	10	3	8		5	1	1	1	16	29	3	2	1	14	6	543
Fishing Information	28	76										1						105
Fishing Decisions	47	65					1											113
Hunting Information	27	63					2					2					1	95
Hunting Decisions	50	10					1					1					1	63
Network Member	102	386	1				3	1			2						2	497
Role of Person in Household Support Network																			
Gasoline Source	76	14		1								1						92
Grocery Source	88	9					1					3						101
Utility Source	80																	80
Repair Person	51	26				1	1				1	1					1	82
Equipment Source	83	1										1						85
Housekeeper	148	17					1					1					1	168
Child Care Worker	33	17																50
Network Member	138	152	1				2				2	2					1	298
Total	1,757	2,344	17	13	22	1	27	2	1	1	40	77	7	4	1	16	20	4,350
Percent	40%	54%	0.4%	0.3%	0.5%	0.0%	0.6%	0.0%	0.0%	0.0%	0.9%	1.8%	0.2%	0.1%	0.0%	0.4%	0.5%	100%

NOTE: The survey included two general questions: "Who helped your household with subsistence," and "who helped your household in other ways?" Responses to these general questions are listed in this table as "Network Member."

Housing Authority, based in Kotzebue.

Social Networks

Social networks are an important feature of the subsistence economies in many, if not all, northwest Alaska communities. People work together extensively to harvest, process, and distribute wild foods. Magdanz, Utermohle, and Wolfe described cooperative food production networks for Wales and Deering (2002). This study used a similar, but expanded, survey instrument to document 16 different subsistence and household support roles in Shungnak. The survey instrument also included a new page to record people who provided subsistence or household support to Shungnak households, but did not live in Shungnak.

Table 3-5 summarizes responses to the social network questions. Each cell in the table counts an instance of subsistence or household support, in which one person was named for one activity by one household. For example, survey households in Shungnak reported 390 instances of wild food harvesting by someone who lived in the respondent household. This could have been a head of a household harvesting caribou, or a daughter in a household harvesting salmon.

The 51 survey households reported 4,350 instances of subsistence or household support in the study year. Residents of Shungnak were named for 4,101 instances (94 percent), and residents of

TABLE 3-6. TYPES AND DESTINTATIONS OF WILD FOOD DISTRIBUTED FROM SHUNGNAK, 2002.

	Fish			Large Mammals		Other Wild Foods			
	Salmon	Sheefish	Whitefish	Caribou	Moose	Waterfowl	Beaver	Berries	Total
NANA Region Communities									0
Ambler	1	7	4	3					15
Kiana		1							1
Kobuk		1		2					3
Kotzebue	2	5	10	8				6	31
Noorvik			1						1
Selawik	3	7	3	7		3		4	27
Other Rural Communities									
Anaktuvuk Pass	1	1	1	1					4
Barrow			2	2					4
Point Lay		1	1	1					3
Ruby	2	2	2	2					8
Other Alaska Communities									
Anchorage	1	2	2	4					9
Fairbanks	2	3	4	10	1	2	1	2	25
Wasilla				1					1
Total	12	30	30	41	1	5	1	12	132

other communities were named for 249 instances (6 percent).

Wild food harvesting, processing and distribution accounted for 2,521 instances (58 percent). Hunting and fishing information and decision making accounted for 366 instances (8.6 percent).

Fishing decisions were most often made by someone not living in the respondent household (58 percent), while hunting decisions were most often made by someone in the respondent household (84 percent). Most likely, this reflects elder women's important role in organizing fishing, especially fishing for whitefish and salmon from the fish camps. Hunting was a more autonomous activity conducted primarily by men. Survey responses suggest that hunters were making individual decisions about when and where to hunt. Nonetheless, hunters relied extensively on individuals outside the respondent household for information (66 percent).

The survey included two general social network questions: "Who helped your household with subsistence," and "Who helped your household in other ways?" These two questions accounted for 795 responses (18 percent of the total). Researchers included these questions to assess whether two simple questions could describe subsistence and household networks reasonably well. Researchers' general impression during the survey administration was that these questions worked well for some households but not for others, and that respondents found them redundant (which they were). Further analysis could determine how successful these questions were.

Residents of Kotzebue were named most frequently as sources of subsistence and household support (77 instances, or 1.8 percent of the total). Residents of nearby Kobuk were named 40 times, and residents of Barrow were named 22 times. Barrow residents were named for harvesting, processing, and distribution of bowhead whale. Residents of other communities were named most often as distributors (that is, sources) of wild food. One hundred of 550 distribution instances were for people outside Shungnak.

Most of the social network questions on the survey asked respondents to identify people who provided subsistence or household support to the respondent household. One series of questions, though, asked respondents to identify people living outside Shungnak who received wild food from the respondent household.

Table 3-6 summarizes the types and destinations of wild foods sent from Shungnak to other communities. Caribou was named most often, followed by sheefish and whitefish. Kotzebue was named most often as the destination. Kotzebue also was named

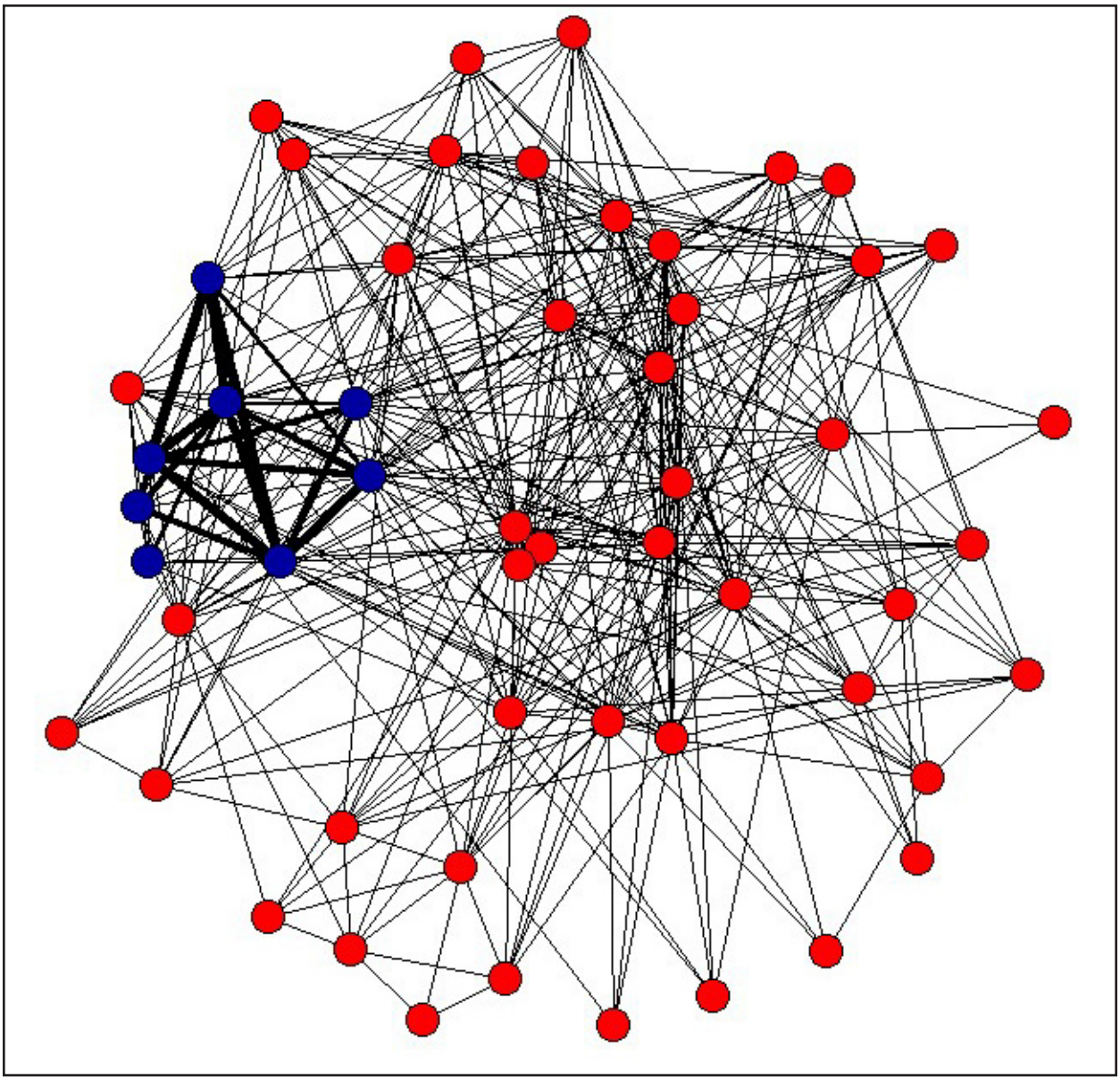

Figure 3-3. Preliminary social network diagram, Shungnak, 2002. In this NetDraw graph, each circle represents a household. Connecting lines represent the flow of support from one household to another. The contrasting circles and lines on the left side identify an extended family organized around an active elder couple and seven related households.

most often as a source of wild food, so some of these exchanges may be reciprocal. The data include enough data to identify reciprocal exchanges, but that was not done for this stage of analysis.

Shungnak's social networks can be depicted in a diagram, in which each household is a node connected to other households. In the diagram, the location of households and the distance of each household from other households are related to the number of connections each household has with all other households in the sample.

Figure 3-3 is a preliminary diagram of Shungnak's social networks, created with Ucinet and NetDraw. It includes all types of subsistence and household support. The social network data indicated that households in Shungnak cooperated extensively. Cooperation was most evident in the production and distribution of wild food, but was present for most other types of household support activities.

4
Discussion

Standardized comprehensive subsistence household surveys have been conducted in rural Alaska communities since the early 1980, including 18 communities in the Northwest Arctic, North Slope, and Koyukuk River regions of Alaska. Limited subsistence surveys (e.g. for salmon or waterfowl) have been conducted in most rural communities. This chapter compares results from Shungnak in 2002 with surveys in other communities and with past surveys in Shungnak.

This was the first comprehensive subsistence survey conducted in Shungnak, and the first ever conducted for any of the five Kobuk River communities. Previous surveys in Shungnak have documented harvests of salmon from 1994-2002, waterfowl in 1993, and large land mammals in 1998 (Georgette et al 2003, Georgette 2000, Georgette 1999).

Figure 4-1 shows estimated harvests for Shungnak

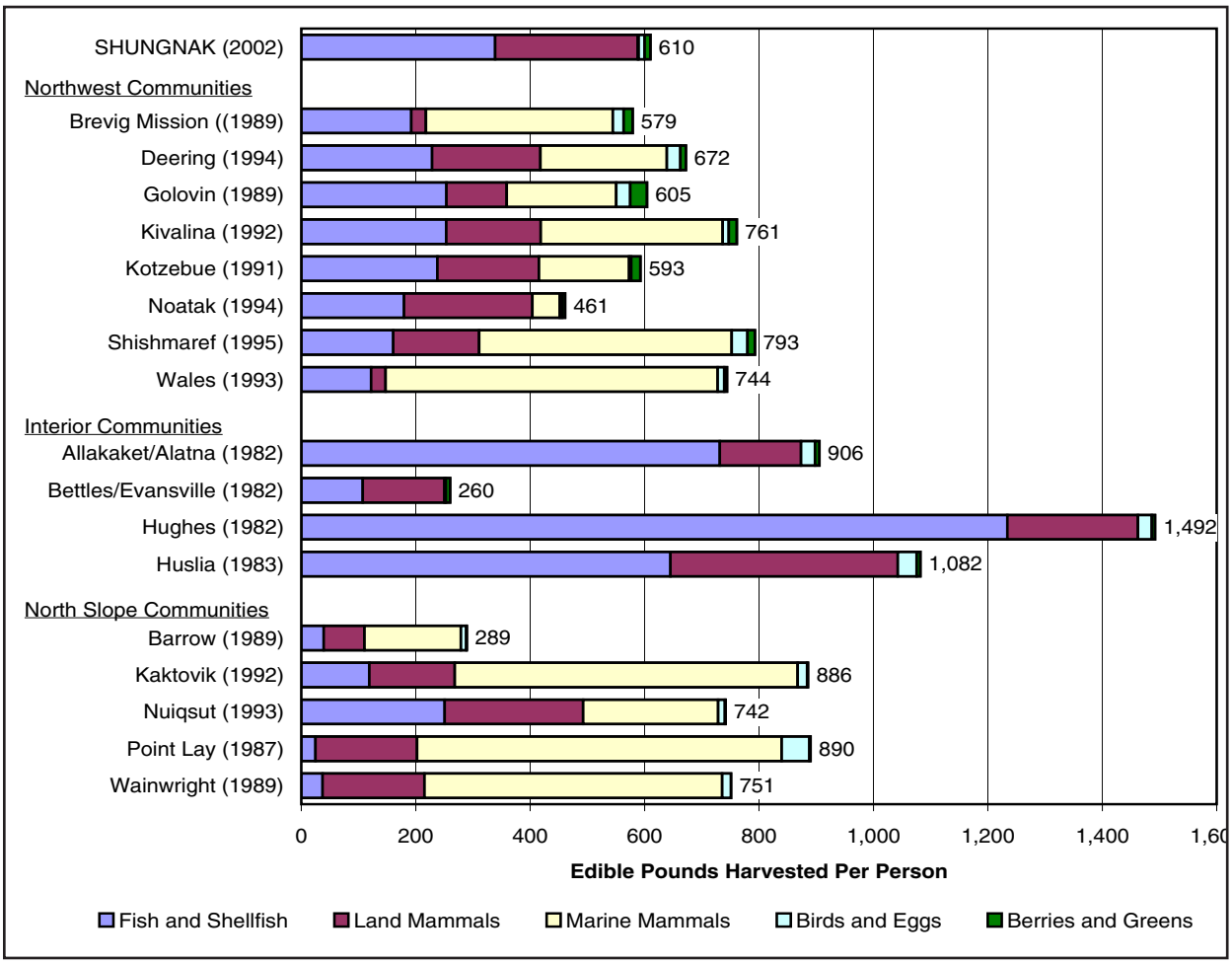

Figure 4-1. Comparison of estimated subsistence harvests by community. Shungnak's estimated subsistence harvest of 610 pounds per person was comparable to the average 674 pounds per person estimated for other northwest and Arctic Alaska communities, but less than estimates for nearby interior communities like Allakaket, Hughes, and Huslia.

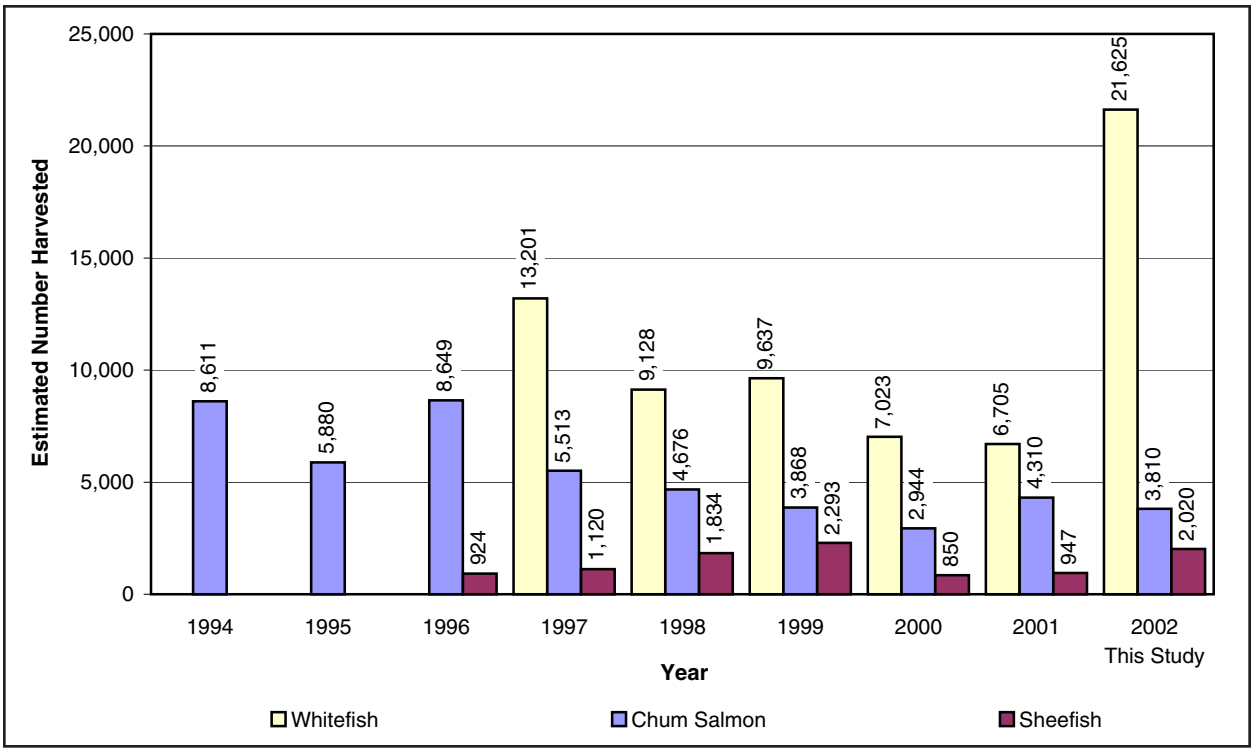

Figure 4-2. Comparison of estimated subsistence harvests of fish. Subsistence harvests of whitefish, salmon, and sheefish have been documented in Shungnak by annual household surveys. Harvests of salmon and sheefish documented by this study were comparable with previous estimates, while the whitefish harvest was twice the average of past years.

and eight other Northwest Arctic communities, five North Slope communities, and four Koyukuk River communities. The northwest Arctic and north slope community harvests, with the exception of Barrow, ranged from 461 to 890 pounds per person. Koyukuk River community harvests, with the exception of Bettles, were higher, ranging from 900 to almost 1,500 pounds. The Koyukuk estimates, though, are older, dating from the early 1980s.

Shungnak's estimated per capita harvest of 610 pounds was near the middle of range for northwest Alaska communities. It was similar to harvests estimated for Brevig Mission (579 pounds), Golovin (605 pounds) and Kotzebue (593 pounds).

Comparisons with Previous Shungnak Surveys

Several harvest surveys have been conducted in Shungnak in the past, dating back at least to the studies conducted during the Alaska Native land claims settlement process. However, early surveys lacked information (sample size, for example) needed to compare them with contemporary surveys. The first statistically sound survey conducted in Shungnak probably was one conducted by Maniilaq Association and the ADF&G Division of Subsistence in 1994, documenting waterfowl harvests in 1993. The same two organizations also conducted a survey in 1999, documenting large land mammal harvests in 1998. ADF&G also has conducted salmon surveys throughout northwest Alaska each year since 1994. The "salmon survey" also has gathered information about sheefish and whitefish harvests in Shungnak.

Figure 4-1 compares data from the annual salmon surveys for 1994 through 2001 with this survey data for 2002. Salmon harvests trended downward during the period; the 2002 harvest of 3,810 salmon was similar to harvests in the previous three years, but 46 percent below the average harvest during the previous eight years, 5,556 salmon. The sheefish harvest in 2002 was the second highest harvest reported in seven years of surveys, 2,020 sheefish compared with an average of 1,328 in the previous six years.

The harvest of whitefish estimated in this study was by far the largest reported in six years of surveys. Although whitefish numbers always have

TABLE 4-1. COMPARISONS OF 2002 ESTIMATES WITH PREVIOUS ESTIMATES OF HARVESTS OF LAND MAMMALS AND BIRDS, SHUNGNAK

	HHs Harvesting		Total Number Harvested			Total Pounds Harvested		
	Prior	2002	Prior	2002	Diff.	Prior	2002	Diff.
Large Land Mammals (1998)								
Black Bear	6%	4%	4	2	- 2	365	186	- 179
Brown Bear	2%	2%	1	1	+ 0	89	91	+ 2
Caribou	72%	67%	561	403	- 158	76,301	54,864	- 21,437
Moose	30%	16%	21	11	- 10	11,159	5,696	- 5,463
Wolf	19%	12%	18	7	- 11	(harvested for fur)		
Wolverine	9%	0%	5	0	- 5	(harvested for fur)		
All Large Land Mammals	*76%*	*67%*	*610*	*425*	*- 185*	*87,914*	*60,838*	*- 27,076*
Geese (1993)								
Brant	0%	2%	0	3	+ 3	0	7	+ 7
Canada Geese	40%	43%	306	218	- 88	1,086	746	- 340
Emperor Geese	0%	2%	0	6	+ 6	0	29	+ 29
Snow Geese	4%	6%	4	12	+ 8	18	46	+ 28
White-fronted Geese	38%	35%	198	148	- 50	840	629	- 211
Unknown Geese	0%	6%	0	31	+ 31	0	0	+ 0
All Geese	*50%*	*51%*	*508*	*418*	*- 90*	*1,944*	*1,458*	*- 486*
Ducks (1993)								
Canvasback	8%	0%	42	0	- 42	83	0	- 83
Common Goldeneye	2%	0%	40	0	- 40	61	0	- 61
Mallard	28%	31%	113	94	- 19	221	184	- 37
Long-tailed Duck	20%	31%	151	139	- 12	202	186	- 16
Northern Pintail	30%	33%	228	187	- 41	355	294	- 61
Scaup	22%	2%	227	11	- 216	343	18	- 325
Scoter	34%	20%	239	58	- 181	412	98	- 314
Northern Shoveler	6%	4%	24	18	- 6	26	20	- 6
Green Winged Teal	6%	0%	20	0	- 20	10	0	- 10
American Wigeon	18%	10%	154	26	- 128	202	35	- 167
Unknown Ducks	0%	8%	0	43	+ 43	0	82	+ 82
All Ducks	*40%*	*43%*	*1,238*	*577*	*- 661*	*1,915*	*916*	*- 999*
Other Birds (1993)								
Tundra Swan (whistling)	4%	0%	6	0	- 6	62	0	- 62
Loons	0%	2%	0	1	+ 1	0	6	+ 6
Spruce Grouse	0%	10%	0	14	+ 14	0	14	+ 14
Rock Ptarmigan	0%	0%	0	0	+ 0	0	0	+ 0
Willow Ptarmigan	30%	37%	421	264	- 157	421	264	- 157
Snowy Owl	2%	0%	1	0	- 1	3	0	- 3
All Other Birds	*30%*	*39%*	*428*	*278*	*- 150*	*486*	*283*	*- 203*

exceeded salmon and sheefish combined, in 2002 Shungnak residents harvested four times as many whitefish as they did salmon and sheefish. One reason for the large difference was low water in 2002, which made seining easier and may have concentrated whitefish in fewer and smaller areas. Whitefish conversion factors used in the northwest salmon survey also were revised before this study, increasing the estimated number of fish per tub by almost two times (Georgette 2004).

Table 4-1 compares data from previous land mammal and bird surveys for Shungnak. Declines

were noted for black bear, caribou, and moose compared with 1998; the change in brown bear harvests was not statistically significant. Likewise, declines were noted for many bird species, notably Canada geese, scaup, scoter, and ptarmigan.

In reviewing the findings, researchers thought that responses to the comparison and assessment questions seemed inconsistent. While most households reported harvesting more or the same amount of most species, most households also reported not getting enough. Researchers did not believe Shungnak's overall harvests had been depressed in recent years.

The comparative data, however, tended to support respondents' assessments. The 2002 salmon harvest was substantially larger than in the previous two years, but still well below harvests documented in the mid 1990s (Georgette 2003). The 2002 caribou harvest, while substantial, was 28 percent less than the harvest estimated for 1998 (Georgette 1999).

Another explanation for the apparent inconsistency of the two responses was that respondents considered each species within a category. For example, some respondents commented that they could never get "enough" bowhead whale muktuk or "enough" seal oil or "enough" Dall sheep, resources which were scarce in Shungnak. While overall harvests might have been more or the same for a species category, the harvest of one particular species in that category might have been deficient, leading to a "no" response to the question.

Comments on Harvest Composition

Most northwest and Arctic communities depend substantially on three resource categories: fish, land mammals, and marine mammals. Shungnak depended substantially on only two: fish and land mammals. In terms of composition, Shungnak's harvest was more similar to nearby interior Alaska communities.

Unique among all the surveyed communities, Shungnak depended substantially upon whitefish. In the four nearby fish-dependent interior Alaska communities, on the one hand, salmon comprised from 61 to 94 percent of the total fish harvest. In Shungnak in 2002, on the other hand, salmon comprised only 27 percent of the total fish harvest.

The dependence on whitefish certainly was related to their abundance, but it may also be related other factors. Whitefish were available at a time of the year when they can be easily dried (fall) or frozen (winter). Whitefish also were available consistently, compared with other resources like caribou, moose, and salmon. Caribou populations are cyclical, and during periods when populations are low, caribou are not a reliable source of food. In the late 1970s, the caribou bag limit was one bull per year (compared with the current five per day). In the 1930s and 1940s, elders remember, Kobuk River people had to travel north to the Noatak valley to get caribou. Moose are relatively recent arrivals in the upper Kobuk River, having become abundant only in the latter half of the twentieth century. Both caribou and moose populations are expected to decline in the future, which would make Shungnak more dependent upon fish than it was in 2002.

Salmon stocks also tend to be cyclical. Upper Kobuk elders remember a period of poor salmon returns around 1950. In the late 1990s, salmon returns declined in the Kuskowkim, Yukon, and Norton Sound drainages. Kobuk River stocks have not declined to the same degree, but if they did, then whitefish would become a critical subsistence food resource for Shungnak.

Although some upper Kobuk residents do travel to the coast to harvest marine mammals, in the study year only 0.5 percent of Shungnak's harvest was marine mammals. In all the other northwest Arctic and north slope communities for which data are available, marine mammals comprised at least a fourth of the total harvest, by weight, and in some communities contributed much more than half.

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Appendix 1: Resolution

NATIVE VILLAGE OF SHUNGNAK
P.O. BOX 64
SHUNGNAK, ALASKA 99773
(907) 437-2163 Phone
(907) 437-2183 Fax

Resolution 02-19

A Resolution in support of a comprehensive subsistence survey to be Conducted in Shungnak by the Native Village of Shungnak, the Alaska Department of Fish and Game, and the National Park Service.

WHEREAS: the Native Village of Shungnak is the governing body of the Village of Shungnak; and

WHEREAS: the Alaska Department of Fish and Game and the National Park Service Have responsibilities for managing the lands and resources that resident of Shungnak Use for subsistence hunting, fishing, and gathering; and

WHEREAS: participation in the project is voluntary, and person's names will not Be used in the survey reports; and

WHEREAS: local research assistants will be paid to assist in administering the survey; and

WHEREAS: the project will document the importance of subsistence harvests of fish and wildlife, so that traditional subsistence uses might be protected in the future.

NOW THEREFORE BE IT RESOLVED; that the Native Village of Shungnak hereby Supports the comprehensive subsistence harvest survey to be conducted in Shungnak.

FURTHER BE IT RESOLVED: that the Native Village of Shungnak will monitor the project in the Native Village of Shungnak.

CERTIFICATION

This resolution was approved by a vote of 6 in favor, Ø against, and Ø abstaining.

Date: 11-25-02 APPROVED: Fred S. President

ATTESTED: Linda Lee acting Administrator

Appendix 2: Supplemental Tables

TABLE A-1. POPULATION PROFILE, SHUNGNAK, 2002

	MALE			FEMALE			TOTAL		
AGE	Number	Percent	Cumulative Percent	Number	Percent	Cumulative Percent	Number	Percent	Cumulative Percent
0 - 4	15	14.6%	14.6%	14	10.6%	10.6%	29	12.3%	12.3%
5 - 9	4	3.9%	18.4%	17	12.9%	23.5%	21	8.9%	21.3%
10 - 14	11	10.7%	29.1%	22	16.7%	40.2%	33	14.0%	35.3%
15 - 19	10	9.7%	38.8%	13	9.8%	50.0%	23	9.8%	45.1%
20 - 24	8	7.8%	46.6%	10	7.6%	57.6%	18	7.7%	52.8%
25 - 29	5	4.9%	51.5%	7	5.3%	62.9%	12	5.1%	57.9%
30 - 34	6	5.8%	57.3%	4	3.0%	65.9%	10	4.3%	62.1%
35 - 39	7	6.8%	64.1%	6	4.5%	70.5%	13	5.5%	67.7%
40 - 44	7	6.8%	70.9%	11	8.3%	78.8%	18	7.7%	75.3%
45 - 49	9	8.7%	79.6%	3	2.3%	81.1%	12	5.1%	80.4%
50 - 54	3	2.9%	82.5%	6	4.5%	85.6%	9	3.8%	84.3%
55 - 59	3	2.9%	85.4%	5	3.8%	89.4%	8	3.4%	87.7%
60 - 64	2	1.9%	87.4%	0	0.0%	89.4%	2	0.9%	88.5%
65 - 69	2	1.9%	89.3%	3	2.3%	91.7%	5	2.1%	90.6%
70 - 74	2	1.9%	91.3%	5	3.8%	95.5%	7	3.0%	93.6%
75 - 79	1	1.0%	92.2%	3	2.3%	97.7%	4	1.7%	95.3%
80 - 84	1	1.0%	93.2%	2	1.5%	99.2%	3	1.3%	96.6%
85 - 89	0	0.0%	93.2%		0.0%	99.2%	0	0.0%	96.6%
90 - 94	1	1.0%	94.2%	0	0.0%	99.2%	1	0.4%	97.0%
Missing	6	5.8%	100.0%	1	0.8%	100.0%	7	3.0%	100.0%
TOTAL	103	100%		132	100%		235	100%	

TABLE A-2. USE AND ESTIMATED HARVEST OF FISH, WILDLIFE, AND PLANTS, SHUNGNAK 2002

Resource Name	Percentage of Households					Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Attempt	Harvest	Receive	Give	Total	Mean HH	Per Capita	Total	Mean HH	Harvest	Per Capita
All Resources	**100%**	**100%**	**100%**	**98%**	**80%**	**151,911**	**2,813**	**610.4**	**31,406**	**581.6**	**9%**	**7%**
Fish	***92%***	***86%***	***86%***	***84%***	***71%***	***84,340***	***1,562***	***339.0***	***29,039***	***537.8***	***9%***	***9%***
Salmon	76%	61%	57%	55%	27%	22,942	425	92.2	3,847	71.2	14%	14%
Chum Salmon	76%	59%	57%	53%	27%	22,858	423	91.9	3,810	70.5	14%	14%
Coho Salmon	2%	2%	2%	0%	0%	6	0	0.0	1	0.0	47%	48%
Chinook Salmon	10%	0%	0%	10%	0%	0	0	0.0	0	0.0	0%	0%
Pink Salmon	2%	2%	2%	0%	0%	73	1	0.3	35	0.6	47%	47%
Sockeye Salmon	10%	4%	2%	10%	2%	5	0	0.0	1	0.0	47%	48%
Unknown Salmon	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Non-Salmon Fish	***90%***	***84%***	***84%***	***84%***	***69%***	***61,397***	***1,137***	***246.8***	***25,193***	***466.5***	***9%***	***9%***
Herring	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Smelt	2%	2%	2%	0%	2%	30	1	0.1	212	3.9	47%	48%
Cod	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Saffron Cod	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Flounder	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Halibut	2%	0%	0%	2%	0%	0	0	0.0	0	0.0	0%	0%
Blackfish	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Burbot	49%	31%	29%	29%	18%	480	9	1.9	114	2.1	14%	14%
Char	47%	45%	39%	14%	14%	314	6	1.3	95	1.8	11%	11%
Dolly Varden	47%	45%	39%	14%	14%	314	6	1.3	95	1.8	11%	11%
Grayling	35%	29%	29%	14%	8%	397	7	1.6	442	8.2	12%	12%
Pike	35%	33%	31%	8%	18%	1,974	37	7.9	598	11.1	20%	21%
Unknown Pike	35%	33%	31%	8%	18%	1,974	37	7.9	598	11.1	20%	21%
Sheefish	84%	63%	65%	55%	33%	11,111	206	44.7	2,020	37.4	12%	12%
Sucker	10%	10%	8%	4%	2%	60	1	0.2	86	1.6	31%	32%
Whitefish	88%	71%	67%	61%	53%	47,030	871	189.0	21,625	400.5	10%	10%
Broad Whitefish	45%	25%	22%	35%	22%	5,580	103	22.4	1,744	32.3	20%	20%
Cisco	10%	6%	4%	4%	2%	749	14	3.0	428	7.9	47%	48%
Least Cisco	10%	6%	4%	4%	2%	749	14	3.0	428	7.9	47%	48%
Unknown Cisco	0%	2%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Humpback Whitefish	84%	67%	65%	53%	41%	40,615	752	163.2	19,340	358.2	10%	10%
Round Whitefish	8%	8%	4%	4%	4%	76	1	0.3	108	2.0	46%	47%
Unknown Whitefish	4%	6%	2%	2%	2%	11	0	0.0	5	0.1	47%	47%
Unknown Non-Salmon Fish	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Land Mammals	***98%***	***69%***	***69%***	***86%***	***53%***	***62,012***	***1,148***	***249.2***	***554***	***10.3***	***8%***	***8%***
Large Land Mammals	98%	69%	67%	84%	51%	60,838	1,127	244.5	417	7.7	8%	8%
Black Bear	39%	16%	4%	35%	2%	186	3	0.7	2	0.0	33%	33%
Brown Bear	16%	10%	2%	14%	4%	91	2	0.4	1	0.0	47%	48%
Caribou	98%	67%	67%	71%	49%	54,864	1,016	220.5	403	7.5	8%	8%
Moose	73%	39%	16%	63%	18%	5,696	105	22.9	11	0.2	17%	17%
Muskox	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Dall Sheep	2%	0%	0%	2%	0%	0	0	0.0	0	0.0	0%	0%
Small Land Mammals	55%	41%	31%	33%	24%	1,174	22	4.7	137	2.5	14%	14%
Beaver	41%	29%	24%	22%	18%	953	18	3.8	52	1.0	14%	15%
Fox	6%	4%	4%	2%	4%	0	0	0.0	5	0.1	34%	0%
Arctic Fox	2%	4%	0%	0%	2%	0	0	0.0	0	0.0	0%	0%
Red Fox	6%	4%	4%	2%	4%	0	0	0.0	5	0.1	34%	0%
Red Fox - Cross Phase	2%	2%	2%	0%	2%	0	0	0.0	1	0.0	47%	0%
Hare	12%	8%	8%	8%	2%	111	2	0.4	32	0.6	33%	33%
Arctic Hare	2%	2%	0%	0%	2%	0	0	0.0	0	0.0	0%	0%
Snowshoe Hare	12%	8%	8%	8%	2%	111	2	0.4	32	0.6	33%	33%
Land Otter	4%	8%	2%	2%	0%	0	0	0.0	2	0.0	47%	0%
Lynx	12%	10%	6%	6%	6%	0	0	0.0	3	0.1	27%	0%
Marmot	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Marten	4%	2%	2%	0%	0%	0	0	0.0	2	0.0	47%	0%
Mink	2%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Muskrat	12%	10%	6%	2%	6%	0	0	0.0	19	0.4	28%	0%
Porcupine	31%	24%	20%	14%	8%	110	2	0.4	14	0.3	15%	16%
Squirrel	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Parka Squirrel (ground)	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Weasel	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Wolf	18%	20%	12%	6%	8%	0	0	0.0	7	0.1	19%	0%
Wolverine	12%	16%	0%	6%	0%	0	0	0.0	0	0.0	0%	0%

Resource Name	Percentage of Households					Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Attempt	Harvest	Receive	Give	Total	Mean HH	Per Capita	Total	Mean HH	Harvest	Per Capita
Marine Mammals	***71%***	***4%***	***2%***	***71%***	***24%***	***373***	***7***	***1.5***	***2***	***0.0***	***47%***	***47%***
Polar Bear	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Seal	69%	2%	2%	69%	18%	373	7	1.5	2	0.0	47%	47%
Bearded Seal	63%	2%	2%	61%	16%	373	7	1.5	2	0.0	47%	47%
Young Bearded Seal	12%	2%	2%	10%	2%	373	7	1.5	2	0.0	47%	47%
Adult Bearded Seal	57%	0%	0%	55%	14%	0	0	0.0	0	0.0	0%	0%
Ribbon Seal	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Ringed Seal	8%	0%	0%	6%	2%	0	0	0.0	0	0.0	0%	0%
Spotted Seal	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Unknown Seal Oil	2%	0%	0%	2%	0%	0	0	0.0	0	0.0	0%	0%
Walrus	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Whale	53%	2%	0%	53%	12%	0	0	0.0	0	0.0	0%	0%
Belukha	16%	0%	0%	14%	6%	0	0	0.0	0	0.0	0%	0%
Bowhead	47%	2%	0%	47%	10%	0	0	0.0	0	0.0	0%	0%
Birds and Eggs	***78%***	***65%***	***63%***	***53%***	***37%***	***2,625***	***49***	***10.5***	***1,274***	***23.6***	***9%***	***9%***
Migratory Birds	75%	55%	53%	51%	33%	2,361	44	9.5	996	18.5	10%	9%
Ducks	65%	45%	43%	39%	25%	898	17	3.6	577	10.7	11%	11%
Canvasback	2%	4%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Goldeneye	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Common Goldeneye	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Harlequin	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Mallard	41%	31%	31%	20%	14%	184	3	0.7	94	1.7	14%	13%
Merganser	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Long-tailed Duck (Oldsquaw)	43%	33%	31%	24%	10%	186	3	0.7	139	2.6	14%	14%
Northern Pintail	45%	37%	33%	25%	18%	294	5	1.2	187	3.5	12%	11%
Scaup	4%	4%	2%	2%	0%	0	0	0.0	11	0.2	47%	0%
Unknown Scaup	4%	4%	2%	2%	0%	18	0	0.1	11	0.2	47%	0%
Scoter	25%	24%	20%	14%	12%	98	2	0.4	58	1.1	16%	16%
Northern Shoveler	8%	6%	4%	2%	2%	20	0	0.1	18	0.3	42%	42%
Teal	0%	2%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Green Winged Teal	0%	2%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Wigeon	18%	18%	10%	4%	8%	35	1	0.1	26	0.5	23%	22%
American Wigeon	18%	18%	10%	4%	8%	35	1	0.1	26	0.5	23%	22%
Unknown Ducks	12%	8%	8%	6%	6%	82	2	0.3	43	0.8	35%	36%
Geese	65%	53%	51%	37%	31%	1,458	27	5.9	418	7.7	9%	9%
Brant	6%	4%	2%	2%	2%	7	0	0.0	3	0.1	47%	48%
Canada Geese	53%	47%	43%	29%	24%	746	14	3.0	218	4.0	10%	9%
Emperor Geese	4%	4%	2%	2%	0%	29	1	0.1	6	0.1	47%	47%
Snow Geese	10%	8%	6%	4%	2%	46	1	0.2	12	0.2	30%	31%
White-fronted Geese	43%	37%	35%	24%	22%	629	12	2.5	148	2.7	11%	11%
Unknown Geese	8%	6%	6%	4%	6%	0	0	0.0	31	0.6	41%	0%
Swan	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Tundra Swan (whistling)	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Crane	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Sandhill Crane	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Shorebirds	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Seabirds & Loons	2%	2%	2%	0%	0%	6	0	0.0	1	0.0	47%	47%
Gulls	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Loons	2%	2%	2%	0%	0%	6	0	0.0	1	0.0	47%	47%
Other Birds	49%	39%	39%	29%	16%	264	5	1.1	277	5.1	14%	15%
Upland Game Birds	49%	39%	39%	29%	16%	264	5	1.1	277	5.1	14%	15%
Grouse	12%	10%	10%	8%	2%	0	0	0.0	14	0.3	23%	0%
Spruce Grouse	12%	10%	10%	8%	2%	14	0	0.1	14	0.3	23%	0%
Ptarmigan	47%	39%	37%	27%	16%	264	5	1.1	264	4.9	15%	15%
Rock Ptarmigan	4%	2%	0%	2%	0%	0	0	0.0	0	0.0	0%	0%
Willow Ptarmigan	47%	39%	37%	27%	16%	264	5	1.1	264	4.9	15%	15%
Owl	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Snowy Owl	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Marine Invertebrates	***0%***	***0%***	***0%***	***0%***	***0%***	***0***	***0***	***0.0***	***0***	***0.0***	***0%***	***0%***
Clams	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Crabs	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
King Crab	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Tanner Crab	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Shrimp	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Unknown Marine Invertebrates	0%	0%	0%	0%	0%	0	0	0.0	0	0.0	0%	0%
Vegetation	***96%***	***92%***	***92%***	***45%***	***39%***	***2,529***	***47***	***10.2***	***537***	***9.9***	***9%***	***8%***
Berries	94%	84%	84%	31%	33%	2,374	44	9.5	365	6.8	8%	8%
Plants/Greens/Mushrooms	25%	18%	16%	12%	6%	53	1	0.2	53	1.0	32%	32%
Wood	71%	53%	59%	35%	14%	102	2	0.4	119	2.2	11%	17%
Roots	33%	20%	18%	18%	8%	102	2	0.4	25	0.5	17%	17%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 2003

TABLE A-3. ESTIMATED HARVESTS OF FISH BY SPECIES AND GEAR TYPE, SHUNGNAK, 2002

	Pounds Harvested					
	Gill Net	Seine Net	Rod and Reel	Ice Fishing	Other Means	All Gear
Salmon						
Chum Salmon	15,654	5,490	414	0	30	21,588
Coho Salmon	5	0	0	0	0	5
Chinook Salmon	0	0	0	0	0	0
Pink Salmon	69	0	0	0	0	69
Sockeye Salmon	5	0	0	0	0	5
Unknown Salmon	0	0	0	0	0	0
All Salmon	15,734	5,490	414	0	30	21,668
Whitefish						
Broad Whitefish	2,256	890	0	2,125	0	5,270
Least Cisco	0	707	0	0	0	707
Unknown Cisco	0	0	0	0	0	0
Humpback Whitefish	859	37,212	263	25	0	38,359
Round Whitefish	0	71	0	0	0	71
Unknown Whitefish	0	10	0	0	0	10
All Whitefish	3,115	38,890	263	2,150	0	44,417
Other Fish						
Herring	0	0	0	0	0	0
Smelt	0	28	0	0	0	28
Saffron Cod	0	0	0	0	0	0
Flounder	0	0	0	0	0	0
Halibut	0	0	0	0	0	0
Blackfish	0	0	0	0	0	0
Burbot	13	0	17	391	34	454
Dolly Varden	102	10	185	0	0	297
Grayling	41	23	297	14	2	375
Unknown Pike	1,521	66	145	116	17	1,865
Sheefish	3,889	1,540	5,066	0	0	10,494
Sucker	23	32	0	0	2	57
All Other Fish	5,588	1,698	5,709	520	54	13,569
All Fish	**24,437**	**46,078**	**6,386**	**2,670**	**84**	**79,654**

TABLE A-4. OTHER INCOME SOURCES, SHUNGNAK, 2002

	Other Income			
	Percentage of Households Reporting	Income Per Person	Income Per Household	Total Income For Community
Dividend Income				
Alaska Permanent Fund Dividend	100 %	$1,463	$6,741	$364,012
Native Corporation Dividend				
Elder or Retirement Income				
Social Security	35 %	888	4,093	221,029
Pension/Retirement	24 %	609	2,807	151,594
Longevity Bonus	29 %	224	1,034	55,815
Investment Income				
Investments/Stocks/Bonds				
Dividends, Interest	20 %	26	118	6,353
Capital Gains				
Medical Income				
Medicare, Medicaid				
Disability				
Veteran Disability				
Public Assistance				
Adult Public Assistance	27 %	$290	$1,334	$72,062
General Assistance Grant				
Aid to Families with Dependent Children	18 %	154	712	38,423
Food Stamps	45 %	812	3,743	202,097
Veteran's Assistance				
Women, Infants, and Children Program				
Grants and Special Programs				
Energy Assistance	49 %	172	790	42,682
Weatherization				
Bureau of Indian Affairs Grants				
Rental Assistance				
Housing Allowances/Off-Base Allowances				
Non-Employment Income				
Rental Income	2 %	28	129	6,988
Equipment Leasing				
Per Diem				
Foster Care	2 %	161	743	40,129
Child Support				
Supplemental Security Income	22 %	342	1,577	85,163
Workman's Compensation, Insurance				
Unemployment	20 %	70	322	17,391
Supplemental Union Benefits				
Miscellanous				
Gifts				
Contest Winnings				
Inheritance				
Other	20 %	129	596	32,194
TOTAL Other Income	100 %	$5,369	$24,739	$1,335,932

TABLE A-5. COUNT OF INSTANCES OF HOUSEHOLD SUPPORT, RESPONDENT HOUSEHOLD BY SOURCE HOUSEHOLD, SHUNGNAK, 2002

HH	Household Named as Source																												
Responding	1	2	3	4	5	6	7	8	10	11	12	13	14	17	18	20	21	22	24	29	31	32	36	37	39	41	42	45
1	42											2	4					6	6				4					
2	4	24		6		6		3	3		4	3		4				5	8				3					
3			12										3	6										15				1
4		2		34										1				1					1					
5	1			3	33	3			1			14	3			1	2	1	2			18	2					
6				1		57										1		1	2				2					
7							28																					
8	3						2	16										5										
10	5						17		38	25						20				48						26		
11	3						4		4	22						4				2				1		18		
12		1									28																	
13												46		9														4
14	5		1	1	1	1					4	2	76	1			11		7		2	6	4	8	4			3
17			1									14		51						1		3		1		1		5
18	2														27		2	2	3									
20	2			2		3	1		2	2		5	1	4		33		2	4		1	4		2		6		
21											1		24		3		20				1	7			3			2
22	14	1	1	3	2	5		6			1	1	3	2			2	37	9			6	4	4				
24	2					1	2								1			3	46				1				1	
29							3		1	6										83				1		10		4
31	not surveyed																											
32				1	6		2					4	5				3	1	3			74	3					2
36		1				8					3	1						3	9			5	37					
37			7						1	2		1		1				1		1				20	7	2	1	
39			1			3					2			1					1			2	1	22	43			
41	1						16		16	18				1		14			3	37						39		
42	1												3				3					6				1	9	
45					1		9				2	15		10						1		2						37
46	not surveyed																											
47		1									2	1	6		1		8		1	1		5			2	2	1	
48												6		2														
49		1																8	7				1					
50												5		9														1
54																												
55													3					6	6	1		4	11					
66	2			1																						2		
68	not surveyed																											
69						2	1		1		1			1		2				3		1	1			11		
72																			2									
81	1										1								1									
84											1	3																
86																												
87		2		1										1			2		2					3				
88															1								1					
89	4						18		27	25						22				51						30		
90		1				3							1					1	2				6		2			
92																												
93																							44					
94						3			1			2		4						3		3						4
95				1			2		4	4						2			1					1		5		
96																							1	1				
97												10		14					7				6					6
98																	1											
99			1																				2	12				
Total	92	34	24	54	43	95	105	25	99	104	50	135	132	122	33	99	54	83	132	232	4	146	135	91	61	153	12	69

HH	Household Named as Source (continued from previous page)																									Non	Total
Responding	46	47	48	49	50	54	55	66	68	69	72	81	84	86	87	88	89	90	92	93	94	95	96	97	98	99	Local	
1		2			2		2																				1	71
2										3	5						12										16	109
3									2																		2	41
4					2	27			3	5	3		1				5										18	103
5	2	13			2	3			1	2														1			5	113
6	1				1	1				1											1						5	74
7																												28
8																												26
10										29							12					1					3	224
11			1							5															1			65
12		6			3																						5	43
13					10																							69
14	3	19	1		5		8		6		6	3						4	8								13	213
17	9	2			15				3	3														5			7	121
18	1								3				2														6	48
20	4	1	3		5				5	4							5		4							2	9	116
21		34		1				3	3										11								9	122
22		2		4	4		5			3							2		2								14	137
24				4	2		3		6	10							7										11	100
29			1							8									1									118
31																												
32		7					4		10	3							1										6	135
36	1				1		13		3	2	1					2		4		17			1				5	117
37					1				8						2												31	86
39					1				7																		9	93
41	4				6					24							8		2			6					10	205
42		5			4						3																	35
45	9	1	2		13				5								2		5		5			13			1	133
46																												
47	4	48			2			1	1						1				7								5	100
48	18		25		7																			1				59
49	1			22					1																		3	44
50	5				78																						5	103
54						52																						52
55				3			50										4	11		4							2	105
66								10																			11	26
68																												
69					2					54	1										1	3					7	92
72									4	1	35	2			1												1	46
81									5		3	13																24
84					3								19		4			1						2			2	35
86											5	5		9											1			20
87					2						3		3		35										6	4		64
88									1	3						12												18
89										32							34					4						247
90				2			3		2									26		1							2	52
92	12	12	2						4										19									49
93							8											2		48				3				105
94	3			1	4				2	4											33			3			1	71
95										2												10						32
96									2		2				3								22		5			36
97	12				15																			44			7	121
98									3		2	3			3								1		27			40
99			1						3				1				5									27	19	71
Total	89	152	36	37	190	83	96	14	93	198	69	26	26	9	49	14	97	48	59	70	40	24	24	72	40	33	251	4,357

Appendix 3: Survey Instrument

SUBSISTENCE RESOURCE SURVEY

SHUNGNAK, ALASKA

STUDY YEAR: JANUARY THROUGH DECEMBER, 2002

HH ID:		
COMMUNITY:	SHUNGNAK	312
START TIME:		
STOP TIME:		
INTERVIEWER:		
DATE:		
CODER:		
SUPERVISOR:		

U.S. NATIONAL PARK SERVICE
SUBSISTENCE DIVISION
BOX 220
NOME, AK 99762

907.443.2252

SHUNGNAK IRA COUNCIL
BOX 64
SHUNGNAK, AK 99773

907.437.2163

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF SUBSISTENCE
BOX 689
KOTZEBUE, AK 99752

800.478.3420

HOUSEHOLD INFORMATION

ID # OF PERSON RESPONDING TO SURVEY: _____

WHO WERE MEMBERS OF THIS HOUSEHOLD BETWEEN JANUARY AND DECEMBER, 2002?

ID#	M/F	RELATION TO HH HEAD	BIRTHDATE MM/DD/YY	RESIDENCE OF PARENTS WHEN PERSON BORN	WHERE ARE PERSON'S PARENTS FROM?		YEAR MOVED		MOVED FROM COMM.	TOTAL YEARS IN SHUNGNAK	ETHNICITY	EDUCATION LEVEL
					MOTHER	FATHER	TO ALASKA	TO SHUNGNAK				
1												
HEAD												
2												
HEAD												
3												
4												
5												
6												
7												
8												
9												
10												

ID#	WHICH MONTHS DID THIS PERSON LIVE IN THIS HOUSEHOLD IN 2002?	IS THIS PERSON A PERMANENT OR TEMPORARY RESIDENT OF YOUR HOUSEHOLD?	BETWEEN JANUARY AND DECEMBER 2002, DID THIS MEMBER OF YOUR HOUSEHOLD... ...HARVEST A LOT OF WILD FOODS?	...MAKE OR REPAIR HUNTING OR FISHING EQUIPMENT?	...USE NATURAL OR TRADITIONAL MEDICINES FOR HEALING?	...MAKE ARTS OR CRAFTS USING PARTS OF WILD ANIMALS?
		P/T	Y/N	Y/N	Y/N	Y/N
1	J F M A M J J A S O N D					
HEAD						
2	J F M A M J J A S O N D					
HEAD						
3	J F M A M J J A S O N D					
4	J F M A M J J A S O N D					
5	J F M A M J J A S O N D					
6	J F M A M J J A S O N D					
7	J F M A M J J A S O N D					
8	J F M A M J J A S O N D					
9	J F M A M J J A S O N D					
10	J F M A M J J A S O N D					

WAS YOUR HOUSEHOLD'S SEASONAL PATTERN OF SUBSISTENCE ACTIVITIES BETWEEN JANUARY AND DECEMBER 2002 SIMILAR TO OTHER YEARS, OR DIFFERENT?

SIMILAR _____(1) DIFFERENT _____(0)

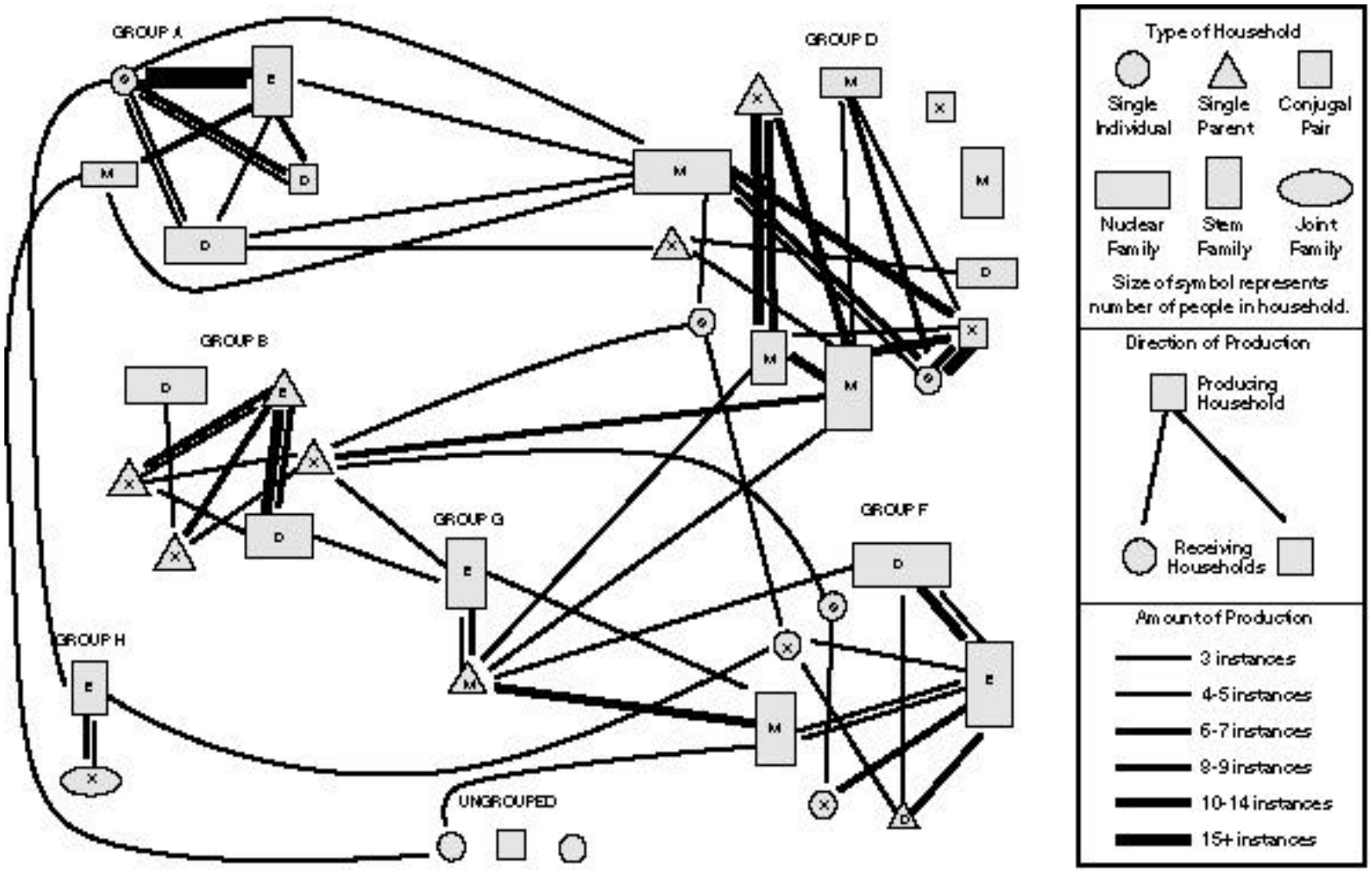
IF DIFFERENT, WHY WAS IT DIFFERENT? _____

_____

_____

64				

Deering Network Example



NETWORK PILE SORT

IN THIS SURVEY WE OFTEN WILL BE ASKING, "WHO HELPED YOUR HOUSEHOLD?"
TO KEEP TRACK OF PEOPLE WITHOUT USING NAMES, WE USE CODES
WE ALREADY HAVE ASSIGNED CODES TO EVERYBODY IN SHUNGNAK.
WE HAVE ONE CARD FOR EACH HOUSEHOLD, WITH CODES FOR PEOPLE IN THAT HOUSEHOLD
BEFORE WE DO THE REST OF THE SURVEY, I WANT TO PULL OUT THE CARDS WITH THE PEOPLE WHO HALPED YOU.

BETWEEN JANUARY AND DECEMBER, 2002, WHO IN SHUNGNAK HELPED YOUR HOUSEHOLD WITH SUBSISTENCE?
(FOR EXAMPLE, BY HUNTING, FISHING, PROCESSING, OR GIVING YOU WILD FOODS) (9)
PLEASE LIST THE MOST IMPORTANT PEOPLE FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
SUBSISTENCE NETWORK																

	PERSON CODE 17	PERSON CODE 18	PERSON CODE 19	PERSON CODE 20	PERSON CODE 21	PERSON CODE 22	PERSON CODE 23	PERSON CODE 24	PERSON CODE 25	PERSON CODE 26	PERSON CODE 27	PERSON CODE 28	PERSON CODE 29	PERSON CODE 30	PERSON CODE 31	PERSON CODE 32
SUBSISTENCE NETWORK																

BETWEEN JANUARY AND DECEMBER, 2002, WHO HELPED YOUR HOUSEHOLD IN OTHER WAYS?
(FOR EXAMPLE, TAKING CARE OF YOUR CHILDREN, FIXING YOUR EQUIPMENT, CLEANING YOUR HOUSE, COOKING, BUYING GROCERIES) (19)
PLEASE LIST THE MOST IMPORTANT PEOPLE FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
DOMESTIC NETWORK																

	PERSON CODE 17	PERSON CODE 18	PERSON CODE 19	PERSON CODE 20	PERSON CODE 21	PERSON CODE 22	PERSON CODE 23	PERSON CODE 24	PERSON CODE 25	PERSON CODE 26	PERSON CODE 27	PERSON CODE 28	PERSON CODE 29	PERSON CODE 30	PERSON CODE 31	PERSON CODE 32
DOMESTIC NETWORK																

NOTE: IF THE RESPONDENT NAMES PEOPLE WHO LIVE OUTSIDE SHUNGNAK, USE CODES FROM THE BACK PAGE OF THE SURVEY.

NON-COMMERCIAL FISHING: SALMON.

DID MEMBERS OF YOUR HOUSEHOLD TRY TO HARVEST OR USE SALMON BETWEEN JANUARY AND DECEMBER 2002 YES: _____ NO: _____

IF YES, PLEASE COMPLETE THE FOLLOWING TABLE (POUNDS SHOULD INDICATE EDIBLE WEIGHT):

SPECIES	USED? Y/N	TRIED TO HARVEST Y/N	NUMBER HARVESTED BY: (INCLUDE SALMON CAUGHT JUST FOR DOG FOOD) GILLNET #	SEINE #	ROD & REEL* #	OTHER GEAR TYPE	OTHER GEAR #	CAUGHT JUST FOR DOG FOOD #	UNITS	RECEIVED Y/N	GAVE AWAY Y/N	NOTES:
FALL CHUM SALMON *QALUGRUAQ*									IND			
111020003									1			
SOCKEYE SALMON (REDS) *QALUGRUAQ*									IND			
115000003									1			
KING SALMON *QALUAQPUK*									IND			
113000003									1			
PINK SALMON (HUMPIES) *AMAQTUK*									IND			
114000003									1			
COHO SALMON *QALUGRUAQ*									IND			
112000003									1			
UNKNOWN SALMON									IND			
119000003									1			

* 'ROD & REEL' INCLUDES TROLLING IN OPEN WATER

NON-COMMERCIAL FISHING: SALMON (CONTINUED)

BETWEEN JANUARY AND DECEMBER 2002, WHO HARVESTED ("CAUGHT") THE SALMON YOUR HOUSEHOLD USED? (1)
INCLUDE PEOPLE LIVING IN YOUR HOUSEHOLD. PLEASE LIST THE MOST IMPORTANT HARVESTERS FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
SALMON HARVESTERS																
110000000																

BETWEEN JANUARY AND DECEMBER 2002, WHO PROCESSED ("CUT") THE SALMON YOUR HOUSEHOLD USED? (2)
INCLUDE PEOPLE LIVING IN YOUR HOUSEHOLD. PLEASE LIST THE MOST IMPORTANT PROCESSORS FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
SALMON PROCESSORS																
110000000																

BETWEEN JANUARY AND DECEMBER 2002, WERE ANY OF THE SALMON USED BY YOUR HOUSEHOLD GIVEN TO YOU BY SOMEONE IN ANOTHER HOUSEHOLD OR COMMUNITY?
IF YES, WHO GAVE FISH TO YOUR HOUSEHOLD? PLEASE LIST MOST IMPORTANT DISTRIBUTORS FIRST. YES (1) _____ NO (0) _____ (3)
DO NOT INCLUDE PEOPLE LIVING IN THIS HOUSEHOLD.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
SALMON DISTRIBUTORS																
110000000																

THIS YEAR, DID YOUR HOUSEHOLD HARVEST LESS, MORE, OR ABOUT THE SAME AMOUNT OF SALMON AS IN THE PAST?

NEVER HARVEST _____(0) LESS: (1) SAME: (2) MORE: (3)

IF LESS OR MORE, WHY? _____

65	110000000			

DID YOUR HOUSEHOLD GET ENOUGH SALMON FOR SUBSISTENCE THIS YEAR? YES: (1) NO: (0)

IF NO, WHY NOT? _____

66	110000000			

NON-COMMERCIAL FISHING: WHITEFISH

DID MEMBERS OF YOUR HOUSEHOLD TRY TO HARVEST OR USE WHITEFISH BETWEEN JANUARY AND DECEMBER 2002?
IF YES, PLEASE COMPLETE THE FOLLOWING TABLE (POUNDS SHOULD INDICATE EDIBLE WEIGHT): YES: _____ NO: _____

SPECIES	USED? Y/N	TRIED TO HARVEST Y/N	NUMBER HARVESTED BY: GILLNET #	SEINE #	ROD & REEL #	ICE NET #	OTHER GEAR TYPE	OTHER GEAR #	UNITS	RECEIVED Y/N	GAVE AWAY Y/N	NOTES:
HUMPBACK WHITEFISH *QAALGIK*									IND			
126408003									1			
ROUND WHITEFISH *QUPTIK*									IND			
126412003									1			
BROAD WHITEFISH *QAUSRILUK*									IND			
126404003									1			
LEAST CISCO *QALUSRAAQ*									IND			
126406063									1			
WHITEFISH, UKNOWN *QALUPIAQ*									IND			
126499003									1			
CISCO, UNKNOWN									IND			
126406993									1			

NON-COMMERCIAL FISHING: WHITEFISH (CONTINUED)

BETWEEN JANUARY AND DECEMBER 2002, WHO HARVESTED ("CAUGHT") THE WHITEFISH YOUR HOUSEHOLD USED? PLEASE LIST THE MOST IMPORTANT HARVESTERS FI (1)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
FISH (WHITEFISH) HARVESTERS																
126400000																

BETWEEN JANUARY AND DECEMBER 2002, WHO PROCESSED ("CUT") THE WHITEFISH YOUR HOUSEHOLD USED? PLEASE LIST THE MOST IMPORTANT PROCESSORS FIRST (2)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
FISH (WHITEFISH) PROCESSORS																
126400000																

BETWEEN JANUARY AND DECEMBER 2002, WERE ANY OF THE WHITEFISH USED BY YOUR HOUSEHOLD GIVEN TO YOU BY SOMEONE IN ANOTHER HOUSEHOLD OR COMMUNITY?
IF YES, WHO GAVE FISH TO YOUR HOUSEHOLD? PLEASE LIST MOST IMPORTANT DISTRIBUTORS FIRST. YES (1) _____ NO (0) _____ (3)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
FISH (WHITEFISH) DISTRIBUTORS																
126400000																

THIS YEAR, DID YOUR HOUSEHOLD HARVEST LESS, MORE, OR ABOUT THE SAME AMOUNT OF WHITEFISH AS IN THE PAST?

NEVER HARVEST _____(0) LESS: (1) SAME: (2) MORE: (3)

IF LESS OR MORE, WHY? _____

65	126400000				

DID YOUR HOUSEHOLD GET ENOUGH WHITEFISH FOR SUBSISTENCE THIS YEAR? YES: (1) NO: (0)

IF NO, WHY NOT? _____

66	126400000				

NON-COMMERCIAL FISHING: FINFISH OTHER THAN SALMON AND WHITEFISH

DID MEMBERS OF YOUR HOUSEHOLD TRY TO HARVEST OR USE FISH OTHER THAN SALMON OR WHITEFISH BETWEEN JANUARY AND DECEMBER 2002?
IF YES, PLEASE COMPLETE THE FOLLOWING TABLE (POUNDS SHOULD INDICATE EDIBLE WEIGHT): YES: _____ NO: _____

SPECIES	USED? Y/N	TRIED TO HARVEST Y/N	NUMBER HARVESTED BY: GILLNET #	SEINE #	ROD & REEL #	ICE FISHING #	OTHER GEAR TYPE	OTHER GEAR #	UNITS	RECEIVED Y/N	GAVE AWAY Y/N	NOTES:
SHEEFISH												
SII									IND			
125600003									1			
TROUT (DOLLY VARDEN)												
QALUKPIK									IND			
125006013									1			
NORTHERN PIKE												
SIULIK									IND			
125400003									1			
ARCTIC GRAYLING												
SULUKPAUGAQ									IND			
125200003									1			
BURBOT (MUDSHARK)												
TITTAALIQ									IND			
124800003									1			
LONGNOSE SUCKER												
KAVIQSUAQ									IND			
126000003									1			
ALASKA BLACKFISH												
124600003												
HERRING												
KSRUKTUUQ, IGAŁUAQPAQ												
120200003												
SMELT												
ILHUAGNIQ												
120400003												
SAFFRON COD (TOMCOD)												
UUGAQ, IGALUAQ												
121010003												
FLOUNDER												
NATAANGNAQ									IND			
121499003									1			
UNKNOWN FISH												

NON-COMMERCIAL FISHING: FINFISH OTHER THAN SALMON AND WHITEFISH (CONTINUED)

BETWEEN JANUARY AND DECEMBER 2002, WHO HARVESTED ("CAUGHT") THE FISH (OTHER THAN SALMON AND WHITEFISH) YOUR HOUSEHOLD USED? (1)
PLEASE LIST THE MOST IMPORTANT HARVESTERS FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
OTHER FISH HARVESTERS																
120000000																

BETWEEN JANUARY AND DECEMBER 2002, WHO PROCESSED ("CUT") THE FISH (OTHER THAN SALMON AND WHITEFISH) YOUR HOUSEHOLD USED? (2)
PLEASE LIST THE MOST IMPORTANT PROCESSORS FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
OTHER FISH PROCESSORS																
120000000																

BETWEEN JANUARY AND DECEMBER 2002, WERE ANY OF THE FISH (OTHER THAN SALMON AND WHITEFISH) USED BY YOUR HOUSEHOLD GIVEN TO YOU BY SOMEONE IN ANOTHER HOUSEHOLD OR COMMUNITY? IF YES, WHO GAVE FISH TO YOUR HOUSEHOLD? LIST MOST IMPORTANT DISTRIBUTORS FIRST. YES (1) _____ NO (0) _____ (3)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
OTHER FISH DISTRIBUTORS																
120000000																

THIS YEAR, DID YOUR HOUSEHOLD HARVEST LESS, MORE, OR ABOUT THE SAME AMOUNT OF FISH (OTHER THAN SALMON) AS IN THE PAST?

NEVER HARVEST _____(0) LESS: (1) SAME: (2) MORE: (3)

IF LESS OR MORE, WHY? _____

65	1200000000				

DID YOUR HOUSEHOLD GET ENOUGH FISH (OTHER THAN SALMON) FOR SUBSISTENCE THIS YEAR? YES: (1) NO: (0)

IF NO, WHY NOT? _____

66	1200000000				

NON-COMMERCIAL FISHING: SHELLFISH

DID MEMBERS OF YOUR HOUSEHOLD TRY TO HARVEST OR USE SHELLFISH BETWEEN JANUARY AND DECEMBER 2002? YES: _____ NO: _____

IF YES, PLEASE COMPLETE THE FOLLOWING TABLE (POUNDS SHOULD INDICATE EDIBLE WEIGHT):

SPECIES	USED? Y/N	TRIED TO HARVEST Y/N	HARVESTED NUMBER #	HARVESTED UNITS	RECEIVED Y/N	GAVE AWAY Y/N	NOTES:
KING CRAB *QAQUQ*				IND			
501008992				1			
TANNER CRAB *MIQUAPAIT*				IND			
501012992				1			
CLAMS *PUGUTAURAQ*							
500699002							
SHRIMP							
503400002							
UNKNOWN SHELLFISH							

NON-COMMERCIAL FISHING: SHELLFISH (CONTINUED)

BETWEEN JANUARY AND DECEMBER 2002, WHO HARVESTED (CAUGHT) THE SHELLFISH YOUR HOUSEHOLD USED? PLEASE LIST THE MOST IMPORTANT HARVESTERS FIR (1)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
SHELLFISH HARVESTERS																
500000002																

BETWEEN JANUARY AND DECEMBER 2002, WHO PROCESSED ("CUT") THE SHELLFISH YOUR HOUSEHOLD USED? PLEASE LIST THE MOST IMPORTANT PROCESSORS FIRST (2)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
SHELLFISH PROCESSORS																
500000002																

BETWEEN JANUARY AND DECEMBER 2002, WERE ANY OF THE SHELLFISH USED BY YOUR HOUSEHOLD GIVEN TO YOU BY SOMEONE IN ANOTHER HOUSEHOLD OR COMMUNITY?
IF YES, WHO GAVE FISH TO YOUR HOUSEHOLD? PLEASE LIST MOST IMPORTANT DISTRIBUTORS FIRST. YES (1) _____ NO (0) _____ (3)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
SHELLFISH DISTRIBUTORS																
500000002																

THIS YEAR, DID YOUR HOUSEHOLD HARVEST LESS, MORE, OR ABOUT THE SAME AMOUNT OF SEAFOOD AS IN THE PAST?

NEVER HARVEST _____(0) LESS: (1) SAME: (2) MORE: (3)

IF LESS OR MORE, WHY? _____

65	5000000000				

DID YOUR HOUSEHOLD GET ENOUGH SEAFOOD FOR SUBSISTENCE THIS YEAR? YES: (1) NO: (0)

IF NO, WHY NOT? _____

66	5000000000				

MARINE MAMMALS

DID MEMBERS OF YOUR HOUSEHOLD TRY TO HARVEST OR USE MARINE MAMMALS BETWEEN JANUARY AND DECEMBER 2002? YES: _____ NO: _____

IF YES, PLEASE COMPLETE THE FOLLOWING TABLE (POUNDS SHOULD INDICATE EDIBLE WEIGHT):

SPECIES	USED*? Y/N	TRIED TO HARVEST? Y/N	SALVAGE? Y/N	NUMBER HARVESTED FOR FOOD #	NUMBER HARVESTED FOR HIDE ONLY #	SEX OF ANIMALS HARVESTED MALE #	SEX OF ANIMALS HARVESTED FEMALE #	SEX OF ANIMALS HARVESTED UNKNOWN #	RECEIVED Y/N	GAVE AWAY Y/N	HIDES NUMBER SOLD	HIDES AVERAGE PRICE
BOWHEAD WHALE *AGVIQ*												
301606000												
BELUGA WHALE *SISUAQ*												
301602000												
BEARDED SEAL, ADULT *UGRUK*												
300802040												
YOUNG BEARDED SEAL *UGRUTCHIAQ*												
300802020												
RINGED SEAL *NATCHIQ*												
300810000												
SPOTTED SEAL *QASIGIAQ*												
300812000												
RIBBON SEAL *QAIGUTLIK*												
300808000												
WALRUS *AIVIQ*												
301400000												
POLAR BEAR *NANUQ*												
300400000												

DID YOUR HOUSEHOLD HARVEST LESS, MORE, OR ABOUT THE SAME AMOUNT OF MARINE MAMMALS AS IN THE PAST?

NEVER HARVEST: (0) _____ LESS:(1) _____ SAME: (2) _____ MORE: (3) _____

IF LESS OR MORE, WHY? _____

WERE YOUR HOUSEHOLD'S SUBSISTENCE NEEDS FOR MARINE MAMMALS MET THIS YEAR?

YES: (1) _____ NO: (2) _____

IF NO, WHY NOT? _____

65	300000000				

66	300000000				

BETWEEN JANUARY AND DECEMBER 2002, WHO HARVESTED ("CAUGHT") THE MARINE MAMMALS YOUR HOUSEHOLD USED?
PLEASE LIST THE MOST IMPORTANT HARVESTERS FIRST. (1)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
SEAL HARVESTERS																
300800000																
BOWHEAD WHALE HARVESTERS																
301606000																
BELUGA WHALE HARVESTERS																
301602000																

BETWEEN JANUARY AND DECEMBER 2002, WHO PROCESSED ("CUT") THE MARINE MAMMALS YOUR HOUSEHOLD USED?
PLEASE LIST THE MOST IMPORTANT PROCESSORS FIRST. (2)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
SEAL PROCESSORS																
300800000																
BOWHEAD WHALE PROCESSORS																
301606000																
BELUGA WHALE PROCESSORS																
301602000																

BETWEEN JANUARY AND DECEMBER 2002, WERE ANY OF THE MARINE MAMMALS USED BY YOUR HOUSEHOLD GIVEN TO YOU BY SOMEONE IN ANOTHER HOUSEHOLD OR COMMUNITY? IF YES, WHO GAVE MARINE MAMMALS TO YOUR HOUSEHOLD? PLEASE LIST MOST IMPORT YES _____ NO _____ (3)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
SEAL DISTRIBUTORS																
300800000																
BOWHEAD WHALE DISTRIBUTORS																
301606000																
BELUGA WHALE DISTRIBUTORS																
301602000																

LARGE LAND MAMMALS

DID MEMBERS OF YOUR HOUSEHOLD TRY TO HARVEST OR USE LARGE LAND MAMMALS BETWEEN JANUARY AND DECEMBER 2002? YES: _____ NO: _____
IF YES, PLEASE COMPLETE THE FOLLOWING TABLE (UNITS SHOULD BE INDIVIDUALS):

SPECIES	USED? Y/N	TRIED TO HARVEST Y/N	HARVESTED ROR FOOD Number	HARVESTED ROR FUR ONLY Number	HARVESTED FOR DOG FOOD ONLY Number	HARVESTED TOTAL Number	RECEIVED Y/N	GAVE AWAY Y/N	NOTES:
CARIBOU *TUTTU*									
211000000									
MOOSE *TINNIIKA*									
211800000									
BROWN BEAR *AKŁAQ*									
210800000									
BLACK BEAR *IYYAGRIQ*									
210600000									
DALL SHEEP *IPNAIQ*									
212200000									
MUSKOX *UMINMAK*									
212000000									
OTHER LARGE MAMMAL									

THIS YEAR, DID YOUR HOUSEHOLD HARVEST LESS, MORE, OR ABOUT THE SAME AMOUNT OF LARGE LAND MAMMALS AS IN THE PAST?
NEVER HARVEST(0) _____ LESS: (1) _____ SAME: (2) _____ MORE: (3) _____

IF LESS OR MORE, WHY? _____

65	2100000000				

WERE YOUR HOUSEHOLD'S SUBSISTENCE NEEDS FOR LARGE LAND MAMMALS MET THIS YEAR? YES: (1) _____ NO: (0) _____

IF NO, WHY NOT? _____

66	2100000000				

BETWEEN JANUARY AND DECEMBER 2002, WHO HARVESTED ("CAUGHT") LARGE LAND MAMMALS YOUR HOUSEHOLD USED? (1)
PLEASE LIST THE MOST IMPORTANT HARVESTERS FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
CARIBOU HARVESTERS																
211000000																
MOOSE HARVESTERS																
211800000																
BLACK BEAR HARVESTERS																
210600000																

BETWEEN JANUARY AND DECEMBER 2002, WHO PROCESSED ("CUT") LARGE LAND MAMMALS YOUR HOUSEHOLD USED?
PLEASE LIST THE MOST IMPORTANT PROCESSORS FIRST. (2)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
CARIBOU PROCESSORS																
211000000																
MOOSE PROCESSORS																
211800000																
BLACK BEAR PROCESSORS																
210600000																

BETWEEN JANUARY AND DECEMBER 2002, WERE ANY OF THE BIG GAME USED BY YOUR HOUSEHOLD GIVEN TO YOU BY SOMEONE
IN ANOTHER HOUSEHOLD OR COMMUNITY? IF YES, WHO GAVE GAME TO YOUR HOUSEHOLD? PLEASE LIST MOST IMPORTANT FIRS YES _____ NO _____ (3)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
CARIBOU DISTRIBUTORS																
211000000																
MOOSE DISTRIBUTORS																
211800000																
BLACK BEAR DISTRIBUTORS																
210600000																

FURBEARERS AND SMALL LAND MAMMALS

BETWEEN JANUARY AND DECEMBER 2002, DID MEMBERS OF YOUR HOUSEHOLD TRY TO HARVEST OR USE FURBEARERS OR SMALL MAMMALS? YES: _____ NO: _____
IF YES, PLEASE COMPLETE THE FOLLOWING TABLE (POUNDS SHOULD INDICATE EDIBLE WEIGHT).

SPECIES	USED? Y/N	TRIED TO HARVEST Y/N	NUMBER HARVESTED FOOD #	NUMBER HARVESTED FUR ONLY #	RECEIVED Y/N	GAVE AWAY Y/N	NUMBER SOLD	AVERAGE PRICE	NOTES
WOLF *AMAGUQ*									
223200000									
WOLVERINE *QAPVIK*									
223400000									
RED FOX *KAYUQTUQ*									
220804000									
ARCTIC FOX *QUSRAAQ*									
220802000									
MARTEN *QAPVAITCHIAQ*									
222000000									
LYNX *NUUTUUYIQ*									
221600000									
BEAVER *PALUQTAQ*									
220200000									
MUSKRAT *KIGVALUK*									
222400000									
LAND OTTER *PAMIUQTUUQ*									
221200000									
MINK *TIGIAQPAK*									
222200000									
WEASEL/ERMINE *TIGIAQ*									
223000000									

FURBEARERS & SMALL LAND MAMMALS (CONTINUED)

SPECIES	USED? Y/N	TRIED TO HARVEST Y/N	NUMBER HARVESTED FOOD #	NUMBER HARVESTED FUR ONLY #	RECEIVED Y/N	GAVE AWAY Y/N	NUMBER SOLD	AVERAGE PRICE	NOTES
GROUND SQUIRREL *SIKSRIK*									
222802000									
MARMOT *SIKSRIKPAK*									
221800000									
SNOWSHOE HARE *UKALLIQ*									
221004000									
ARCTIC HARE *UKALLISUGRUK*									
221002000									
PORCUPINE *ILUQUTAQ*									
222600000									

THIS YEAR, DID YOUR HOUSEHOLD HARVEST LESS, MORE, OR ABOUT THE SAME AMOUNT OF FURBEARERS AND SMALL MAMMALS AS IN THE PAST?

NEVER HARVEST _____(0) LESS: (1) SAME: (2) MORE: (3)

IF LESS OR MORE, WHY? _____

65	2200000000				

DID YOUR HOUSEHOLD GET ENOUGH FURBEARERS AND SMALL MAMMALS FOR SUBSISTENCE THIS YEAR? YES: (1) NO: (0)

IF NO, WHY NOT? _____

66	2200000000				

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FURBEARERS & SMALL LAND MAMMALS (CONTINUED)

(1)

BETWEEN JANUARY AND DECEMBER 2002, WHO HARVESTED ("CAUGHT") THE FURBEARERS AND SMALL MAMMALS YOUR HOUSEHOLD USED?
PLEASE LIST THE MOST IMPORTANT HARVESTERS FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
FUR ANIMAL HARVESTERS																
2400000000																
SMALL (FOOD) MAMMAL HARVESTRS																
220000000																

BETWEEN JANUARY AND DECEMBER 2002, WHO PROCESSED ("CUT") THE FURBEARERS AND SMALL MAMMALS YOUR HOUSEHOLD USED? (2)
PLEASE LIST THE MOST IMPORTANT PROCESSORS FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
FUR ANIMAL PROCESSORS																
2400000000																
SMALL (FOOD) MAMMAL PROCESSORS																
220000000																

IN 2002, WERE ANY OF THE FURBEARERS OR SMALL MAMMALS USED BY YOUR HH GIVEN TO YOU BY SOMEONE IN ANOTHER HH OR COMMUNITY?
IF YES, WHO GAVE FISH TO YOUR HOUSEHOLD? PLEASE LIST MOST IMPORTANT DISTRIBUTORS FIRST. YES (1) _____ NO (0) _____ (3)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
FUR ANIMAL DISTRIBUTORS																
2400000000																
SMALL (FOOD) MAMMAL DISTRIBUTORS																
220000000																

GEESE

BETWEEN JANUARY AND DECEMBER 2002, DID MEMBERS OF YOUR HOUSEHOLD TRY TO HARVEST OR USE GEESE OR THEIR EGGS? IF YES, PLEASE COMPLETE THE FOLLOWING TABLE

YES: _____ NO: _____

KEY NO.	RESOURCE	USED? Y/N	TRIED TO HARVEST Y/N	NUMBER HARVESTED IN... ...WINTER (N D J F) #	...SPRING (M A M) #	...SUMMER (J J) #	...FALL (A S O) #	...UNKNOWN #	TOTAL BIRDS HARVESTED #	TOTAL EGGS TAKEN #	RECEIVED Y/N	GAVE AWAY Y/N
	CANADA GEESE *NIGLIQ, LIQLIRAIRUQ*											
	410404990											
1	WHITEFRONTED GEESE *KIGIYUK*											
	410410000											
2	EMPEROR GEESE *MITILUGRUAQ, NASAUʟIQ*											
	410406000											
5	SNOW GEESE *KANUK*											
	410408000											
6	BRANT *LIQLINAURAQ*											
	410402000											
	UNKNOWN GEESE											
	410499000											

DUCKS

BETWEEN JANUARY AND DECEMBER 2002, DID MEMBERS OF YOUR HOUSEHOLD TRY TO HARVEST OR USE DUCKS OR THEIR EGGS? IF YES, PLEASE COMPLETE THE FOLLOWING TABLE

YES: _____ NO: _____

KEY NO.	RESOURCE	USED? Y/N	TRIED TO HARVEST Y/N	NUMBER HARVESTED IN... ...WINTER (N D J F) #	...SPRING (M A M) #	...SUMMER (J J) #	...FALL (A S O) #	...UNKNOWN #	TOTAL BIRDS HARVESTED #	TOTAL EGGS TAKEN #	RECEIVED Y/N	GAVE AWAY Y/N
7	NORTHERN PINTAIL *YUGAQ*											
	410220000											
8	AMERICAN WIGEON											
	410236020											
	SCOTER *TUNNAQ*											
	410228990											
9	MALLARD *IRAGUSRUGRUK*											
	410214000											
10	NORTHERN SHOVELER											
	410230000											
	UNKNOWN SCAUP											
	410226990											
11	CANVASBACK											
	410204000											
14	GREEN-WINGED TEAL											
	410232060											
	MERGANSER											
	410216990											
18	HARLEQUIN DUCK											
	410212000											
19	OLDSQUAW *AHAALIQ*											
	410218000											
20	COMMON GOLDENEYE											
	410210040											
	OTHER DUCKS											
	410299000											

OTHER BIRDS

BETWEEN JANUARY AND DECEMBER 2002, DID MEMBERS OF YOUR HOUSEHOLD TRY TO HARVEST OR USE OTHER BIRDS OR THEIR EGGS? IF YES, PLEASE COMPLETE THE FOLLOWING TABLE

YES: _____ NO: _____

KEY NO.	RESOURCE	USED? Y/N	TRIED TO HARVEST Y/N	NUMBER HARVESTED IN... ...WINTER (N D J F) #	...SPRING (M A M) #	...SUMMER (J J) #	...FALL (A S O) #	...UNKNOWN #	TOTAL BIRDS HARVESTED #	TOTAL EGGS TAKEN #	RECEIVED Y/N	GAVE AWAY Y/N
43	WILLOW PTARMIGAN *AQALGIQ*											
	421804040											
44	ROCK PTARMIGAN											
	421804020											
45	SPRUCE GROUSE *NAPAQTUM AQALGIQ*											
	421802020											
48	TUNDRA SWAN *QUGRUK*											
	410699000											
47	SANDHILL CRANE *TATIRGAQ*											
	410802000											
46	SNOWY OWL *UKPIK*											
	422002000											
	LOON *QAQSRAUQ*											
	411216990											
	GULL *NAUYUAQ*											
	411212990											
	SEABIRDS											
	SHOREBIRDS											

BIRDS (C0NTINUED)

BETWEEN JANUARY AND DECEMBER 2002, WHO HARVESTED ("CAUGHT") GEESE, DUCKS, AND OTHER BIRDS YOUR HOUSEHOLD USED? (1)
PLEASE LIST THE MOST IMPORTANT HARVESTERS FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
BIRD HARVESTERS																
4000000000																

BETWEEN JANUARY AND DECEMBER 2002, WHO PROCESSED ("PLUCKED") THE GEESE, DUCKS, AND OTHER BIRDS YOUR HOUSEHOLD USED? (2)
PLEASE LIST THE MOST IMPORTANT PROCESSORS FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
BIRD PROCESSORS																
4000000000																

BETWEEN JANUARY AND DECEMBER 2002, WERE ANY OF THE BIRDS USED BY YOUR HOUSEHOLD GIVEN TO YOU BY SOMEONE IN ANOTHER HOUSEHOLD OR COMMUNITY?
IF YES, WHO GAVE FISH TO YOUR HOUSEHOLD? PLEASE LIST MOST IMPORTANT DISTRIBUTORS FIRST. YES (1) _____ NO (0) _____ (3)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
BIRD DISTRIBUTORS																
4000000000																

THIS YEAR, DID YOUR HOUSEHOLD HARVEST LESS, MORE, OR ABOUT THE SAME AMOUNT OF BIRDS AS IN THE PAST?

NEVER HARVEST _____(0) LESS: (1) SAME: (2) MORE: (3)

IF LESS OR MORE, WHY? _____

65	4000000000				

DID YOUR HOUSEHOLD GET ENOUGH BIRDS FOR SUBSISTENCE THIS YEAR? YES: (1) NO: (0)

IF NO, WHY NOT? _____

66	4000000000				

WILD PLANTS.

BETWEEN JANUARY AND DECEMBER 2002, DID MEMBERS OF YOUR HOUSEHOLD TRY TO HARVEST OR USE WILD PLANTS? YES:_____ NO:_____
IF YES, PLEASE COMPLETE THE FOLLOWING TABLE (POUNDS SHOULD INDICATE EDIBLE WEIGHT).

SPECIES	USED? Y/N	TRIED TO HARVEST Y/N	AMOUNT HARVESTED #	UNIT	RECEIVED Y/N	GAVE AWAY Y/N	NOTES
BERRIES							
ASIAT							
610000							
PLANTS/GREENS/MUSHROOMS							
NAUSRIAT							
620300							
ROOTS							
MASU							
620700							
FIREWOOD							
640000							

WILD PLANTS (CONTINUED)

BETWEEN JANUARY AND DECEMBER 2002, WHO HARVESTED ("CAUGHT") THE EDIBLE WILD PLANTS YOUR HOUSEHOLD USED? (1)
PLEASE LIST THE MOST IMPORTANT HARVESTERS FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
EDIBLE PLANT HARVESTERS																
600000																

BETWEEN JANUARY AND DECEMBER 2002, WHO PROCESSED ("CUT") THE EDIBLE WILD PLANTS YOUR HOUSEHOLD USED? (2)
PLEASE LIST THE MOST IMPORTANT PROCESSORS FIRST.

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
EDIBLE PLANT PROCESSORS																
600000																

BETWEEN JANUARY AND DECEMBER 2002, WERE ANY OF THE EDIBLE WILD PLANTS USED BY YOUR HOUSEHOLD GIVEN TO YOU BY SOMEONE IN ANOTHER HOUSEHOLD OR COMMU
IF YES, WHO GAVE FISH TO YOUR HOUSEHOLD? PLEASE LIST MOST IMPORTANT DISTRIBUTORS FIRST. YES (1) _____ NO (0) _____ (3)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
EDIBLE PLANT DISTRIBUTORS																
600000																

THIS YEAR, DID YOUR HOUSEHOLD HARVEST LESS, MORE, OR ABOUT THE SAME AMOUNT OF EDIBLE WILD PLANTS AS IN THE PAST?

NEVER HARVEST _____(0) LESS: (1) SAME: (2) MORE: (3)

IF LESS OR MORE, WHY? _____

65	6000000000				

DID YOUR HOUSEHOLD GET ENOUGH EDIBLE WILD PLANTS FOR SUBSISTENCE THIS YEAR? YES: (1) NO: (0)

IF NO, WHY NOT? _____

66	6000000000				

COMMERCIAL FISHING

DID MEMBERS OF YOUR HOUSEHOLD PARTICIPATE IN COMMERCIAL FISHING BETWEEN JANUARY AND DECEMBER 2002? YES: _____ NO: _____

IF YES, PLEASE COMPLETE THE FOLLOWING TABLE (POUNDS SHOULD INDICATE EDIBLE WEIGHT):

	COMMERCIAL FISHED?		AREAS			NUMBER REMOVED FOR:			ID #'S OF FISHERS	
SPECIES	Y/N	INCIDENTAL	1ST	2ND	PRINCIPAL GEAR TYPE	OWN USE #	GAVE AWAY #	UNITS	PERMIT HOLDER	CREW
CHUM SALMON *QALUGRUAQ*								IND		
110101								1		
PINK SALMON (HUMPIES) *AMAKŁUK*								IND		
110401								1		
SILVER SALMON								IND		
110201								1		
KING SALMON *IQALUSUGRUK*								IND		
110301								1		
SOCKEYE SALMON								IND		
110501								1		
DOLLY VARDEN *IQAŁUKPIK*								GAL		
124121								4		
HERRING *IGAŁUAQPAQ*								GAL		
121501								4		
SHEEFISH *SII*								IND		
120601								1		
HALIBUT								LBS		
121401								2		
KING CRAB *QAQUQ*								IND		
503391								1		

AREAS: AKP, BB, CHG, KOD, CI, PWS, SE, ALU, KUSK, YUK, NOR, KOT

GEAR TYPES: SET GILL, DRIFT GILL, SEINE, LONG LINE, TROLLING, POTS, TRAWLING

COMMUNITIES - GAVE

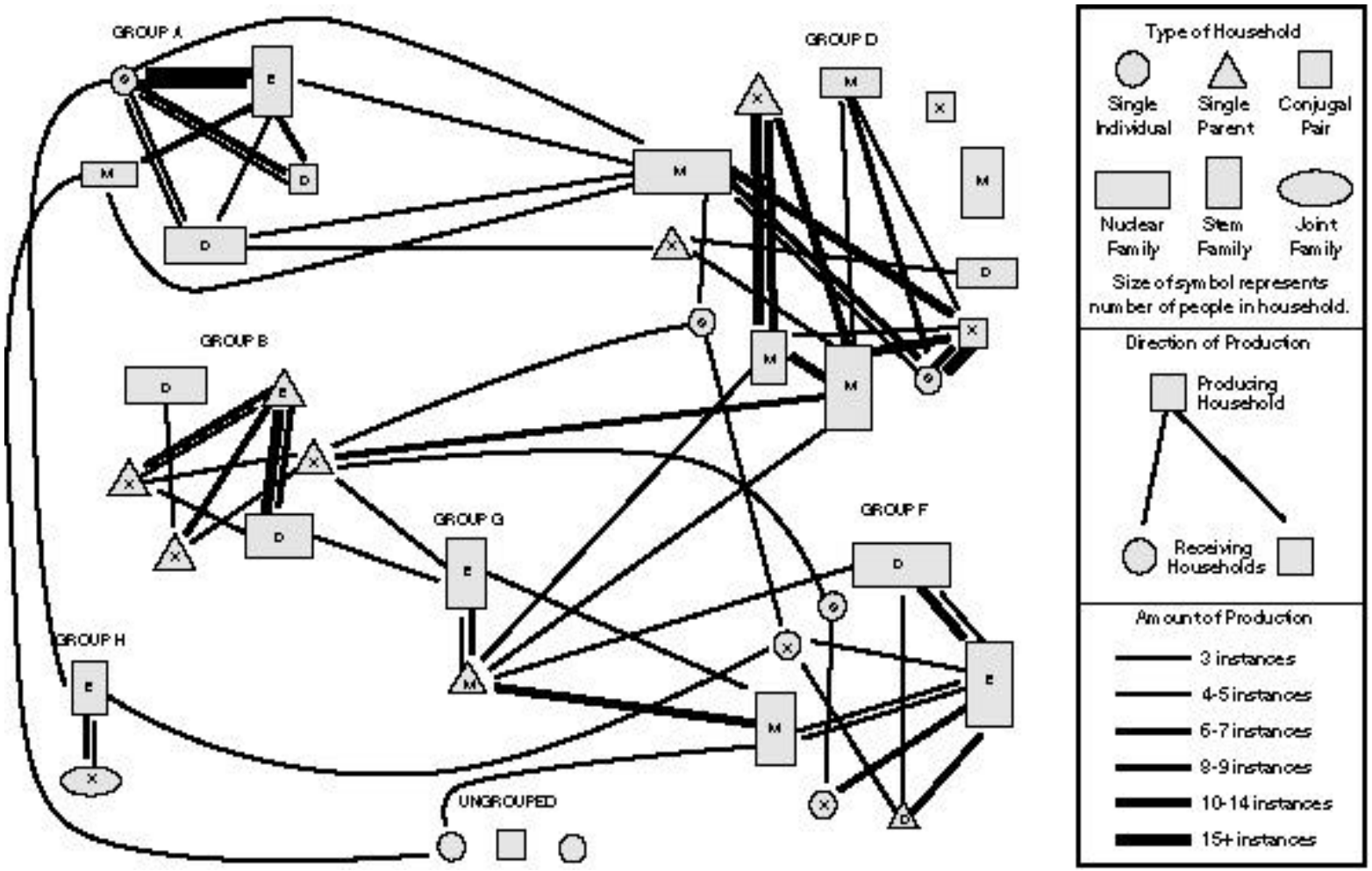
BETWEEN JANUARY AND DECEMBER 2002, DID YOUR HOUSEHOLD GIVE WILD FOODS TO PEOPLE IN OTHER COMMUNITIES? YES: _____ NO: _____
IF SO, TO WHOM DID YOU GIVE WILD FOODS AND WHERE DID THEY LIVE? PLEASE LIST MOST IMPORTANT GIFTS FIRST.

	GIFT 01		GIFT 02		GIFT 03		GIFT 04		GIFT 05		GIFT 06		GIFT 07		GIFT 08	
	PERSON ID	COMM ID	PERSON ID	COMM ID	PERSON ID	COMM ID	PERSON ID	COMM ID	PERSON ID	COMM ID	PERSON ID	COMM ID	PERSON ID	COMM ID	PERSON ID	COMM ID
SALMON *QALUGRUAQ*																
110000																
WHITEFISH *SII*																
120800																
SHEEFISH *SII*																
120600																
CARIBOU *TUTTU*																
210400																
MOOSE *TINNIIKA*																
210800																
BEAR																
WATERFOWL *TINGMIAT*																
440000																
BERRIES																
OTHER WILD FOODS																

COMMUNITY ABBREVIATIONS (AIRPORT IDs)

OBU = KOBUK	WLK = SELAWIK	OTZ = KOTZEBUE	BRW = BARROW	OME = NOME	ANC = ANCHORAGE
ABL = AMBLER	DEE = DEERING	KIV = KIVALINA		UNK = UNALAKLEET	FAI = FAIRBANKS
IAN - KIANA	BKL = BUCKLAND	PHO = POINT HOPE			JUN = JUNEAU
ORV = NOORVIK	WTL = NOATAK				

Deering Network Example



SOCIAL CAPITAL

WE ARE INTERESTED IN HOW PEOPLE WORK TOGETHER TO SUPPORT THIS HOUSEHOLD.
WE WOULD LIKE TO KNOW WHO HELPED YOUR HOUSEHOLD DURING THE PAST YEAR, AND HOW THEY HELPED YOU.
WE ARE NOT ASKING YOUR TO REMEMBER EVERYBODY WHO HELPED, BUT WE WOULD LIKE TO KNOW SOME OF THE MOST IMPORTANT PEOPLE.
THINK ABOUT THE PEOPLE WHO HELPED YOUR HOUSEHOLD THE MOST, INCLUDING PEOPLE NOT LIVING WITH YOU...

BETWEEN JANUARY AND DECEMBER, 2002, WHO TALKED WITH MEMBERS OF YOUR HOUSEHOLD ABOUT WHEN, WHERE, AND HOW TO FISH? (4)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
FISHING INFORMATION SOURCES																

BETWEEN JANUARY AND DECEMBER, 2002, WHO DECIDED WHEN, WHERE, AND HOW MEMBERS OF YOUR HOUSEHOLD FISHED?
(IF YOU ARE ONE OF THE DECISION-MAKERS, INCLUDE YOURSELF) (5)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
FISHING DECISION MAKERS																

BETWEEN JANUARY AND DECEMBER, 2002, WHO TALKED WITH MEMBERS OF YOUR HOUSEHOLD ABOUT WHEN, WHERE, AND HOW TO HUNT? (6)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
HUNTING INFORMATION SOURCES																

BETWEEN JANUARY AND DECEMBER, 2002, WHO DECIDED WHEN, WHERE, AND HOW MEMBERS OF YOUR HOUSEHOLD HUNTED?
(IF YOU ARE ONE OF THE DECISION-MAKERS, INCLUDE YOURSELF) (7)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
HUNTING DECISION MAKERS																

BETWEEN JANUARY AND DECEMBER, 2002, WHO BOUGHT GASOLINE FOR YOUR HOUSEHOLD? (11)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
GASOLINE SOURCES																

BETWEEN JANUARY AND DECEMBER, 2002, WHO BOUGHT GROCERIES FOR YOUR HOUSEHOLD? (12)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
GROCERY SOURCES																

BETWEEN JANUARY AND DECEMBER, 2002, WHO PAID OTHER BILLS FOR YOUR HOUSEHOLD? (ELECTRICITY, TELEPHONE, WATER-SEWER, FUEL OIL...) (13)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
UTILITY SOURCES																

BETWEEN JANUARY AND DECEMBER, 2002, WHO FIXED YOUR HOUSEHOLD'S EQUIPMENT?
"EQUIPMENT" INCLUDES FOUR-WHEELERS, SNOWMACHINES, BOATS, TRUCKS, CARS, AND SO ON. (14)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
MAINTENANCE WORKERS																

SOCIAL CAPITAL (continued)

WHO BOUGHT THE EQUIPMENT YOUR HOUSEHOLD USED BETWEEN JANUARY AND DECEMBER, 2002?
(THIS INCLUDES EQUIPMENT BOUGHT BEFORE THE STUDY YEAR. EQUIPMENT MEANS FOUR-WHEELRS, SNOWMACHINES, BOATS, TRUCKS, CARS, AND SO ON). (15)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
EQUIPMENT SOURCES																

BETWEEN JANUARY AND DECEMBER, 2002, WHO DID CHORES FOR YOUR HOUSEHOLD? WERE THEY PAID?
(CHORES INCLUDE COOKING, CLEANING, LAUNDRY, AND SIMILAR CHORES) (16)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
HOUSEHOLD WORKERS																
PAID FOR HOUSE WORK? (Y or N)																

BETWEEN JANUARY AND DECEMBER, 2002, WHO TOOK CARE OF YOUR HOUSEHOLD'S CHILDREN? WERE THEY PAID?
(IF NO CHILDREN LIVE IN THIS HOUSEHOLD, LEAVE BLANK) (17)

	PERSON CODE 01	PERSON CODE 02	PERSON CODE 03	PERSON CODE 04	PERSON CODE 05	PERSON CODE 06	PERSON CODE 07	PERSON CODE 08	PERSON CODE 09	PERSON CODE 10	PERSON CODE 11	PERSON CODE 12	PERSON CODE 13	PERSON CODE 14	PERSON CODE 15	PERSON CODE 16
CHILD CARE WORKERS																
PAID FOR CHILD CARE? (Y or N)																

EMPLOYMENT HISTORY.

PLEASE INDICATE THE FOLLOWING INFORMATION FOR ALL JOBS HELD BY THE EMPLOYED HOUSEHOLD MEMBERS 16 OR OLDER LISTED ON PAGE 1 BETWEEN JANUARY AND DECEMBER 2002. BE SURE TO INDICATE TRAPPING, IF FURS ARE BARTERED OR SOLD.
FOR THOSE NOT EMPLOYED, PLEASE SPECIFY RETIRED, UNEMPLOYED, DISABLED, STUDENT, OR HOMEMAKER.

ID#	JOB #	JOB TITLE	SOC	EMPLOYER TYPE	SIC	TYPE*	LOCATION	WHICH MONTHS WORKED IN 2002	HRS/DAY	DAYS/ WEEK	WORK ** SCHEDULE	PERSONAL GROSS INCOME
								J F M A M J J A S O N D				
								J F M A M J J A S O N D				
								J F M A M J J A S O N D				
								J F M A M J J A S O N D				
								J F M A M J J A S O N D				
								J F M A M J J A S O N D				
								J F M A M J J A S O N D				
								J F M A M J J A S O N D				
								J F M A M J J A S O N D				
								J F M A M J J A S O N D				

*TYPE: **(1)** NATIVE PROFIT or **(2)** NATIVE NON-PROFIT; OTHERWISE LEAVE BLANK.

WORK SCHEDULE = **(1) FULLTIME (35+ HOURS/WK) **(2)** PARTTIME (<35 HOURS/WEEK) **(3)** SHIFT (2 WEEKS ON/2 OFF, 1 WEEK ON/1 OFF, ETC.) **(4)** IRREGULAR, ON CALL, AS REQUIRED **(5)** SHIFT - PART TIME

OTHER INCOME AND EXPENSES.

OTHER INCOME SOURCES BETWEEN JANUARY AND DECEMBER 2002

NOTES:

1	2	3	4	5	6	7	8	9	10
$1,541	$3,082	$4,622	$6,163	$7,704	$9,245	$10,785	$12,326	$13,867	$15,408

_____ (NUMBER) ALASKA PERMANENT FUND DIVIDEND $ _____ PER YEAR

SOCIAL SECURITY (07) $ _____ PER YEAR

SUPPLEMENTAL SECURITY INCOME (10) $ _____ PER YEAR

NATIVE CORPORATION DIVIDEND (13) $ _____ PER YEAR

AID TO FAMILIES WITH DEPENDENT CHILDREN (02) $ _____ PER YEAR

PENSION AND RETIREMENT (05) $ _____ PER YEAR

WORK COMPENSATION INSURANCE (08) $ _____ PER YEAR

FOOD STAMPS (11) $ _____ PER YEAR

DIVIDENDS AND INTEREST (14) $ _____ PER YEAR

ADULT PUBLIC ASSISTANCE (03) $ _____ PER YEAR

LONGEVITY BONUS ($250 PER MONTH) (06) $ _____ PER YEAR

ENERGY ASSISTANCE (09) $ _____ PER YEAR

UNEMPLOYMENT (12) $ _____ PER YEAR

OTHER _____( ) $ _____ PER YEAR

DO YOU HAVE ANY OTHER QUESTIONS, COMMENTS, OR CONCERNS?

INTERVIEW SUMMARY:

BE SURE TO FILL IN THE STOP TIME ON THE FIRST PAGE!!!!

CODE WORKSHEET

IF PEOPLE OUTSIDE OF SHUNGNAK ARE NAMED AS HARVESTERS, PROCESSORS, OR DISTRIBUTORS, PLEASE KEEP TRACK OF THEIR CODES ON THIS PAGE.

CODE USED IN THIS SURVEY	PERSON'S NAME (FOR CODING PURPOSES ONLY NAME IS NOT ENTERED IN DATA FILES)	COMMUNITY WHERE THIS PERSON LIVES	INDIVIDUAL CODE (ENTERED LATER)	RELATION TO HH HEAD	M/F	ESTIMATED AGE	COMMENTS
0001							
0002							
0003							
0004							
0005							
0006							
0007							
0008							
0009							
0010							
0011							
0012							
0013							
0014							

CODE CONSTRUCTION NOTE: The first two digits, 00__, means a household is NOT in the study community. The second two digits__01, __02, __03 identify a unique individual.

CODE WORKSHEET

IF PEOPLE OUTSIDE OF SHUNGNAK ARE NAMED AS HARVESTERS, PROCESSORS, OR DISTRIBUTORS, PLEASE KEEP TRACK OF THEIR CODES ON THIS PAGE.

CODE USED IN THIS SURVEY	PERSON'S NAME (FOR CODING PURPOSES ONLY NAME IS NOT ENTERED IN DATABASE)	COMMUNITY WHERE THIS PERSON LIVES	INDIVIDUAL CODE (ENTERED LATER)	RELATION TO HH HEAD	M/F	ESTIMATED AGE	COMMENTS
0015							
0016							
0017							
0018							
0019							
0020							
0021							
0022							
0023							
0024							
0025							
0026							
0027							
0028							