

Technical Paper No. 425

Lewis Point Fish Camp Ethnography

by

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and

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Alaska Department of Fish and Game

Division of Subsistence



Symbols and Abbreviations

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Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft ³ /s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols

alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

all commonly-accepted abbreviations;
e.g., Mr., Mrs., AM, PM, etc.

all commonly-accepted professional
titles; e.g., Dr., Ph.D., R.N., etc.

Alaska Administrative Code AAC

Alaska Department of Fish and Game ADF&G

at @

compass directions:

east E

north N

south S

west W

copyright ©

corporate suffixes:

Company Co.

Corporation Corp.

Incorporated Inc.

Limited Ltd.

District of Columbia D.C.

et alii (and others) et al.

et cetera (and so forth) etc.

exempli gratia (for example) e.g.

Federal Information Code FIC

id est (that is) i.e.

latitude or longitude lat. or long.

monetary symbols (U.S.) \$, ¢

months (tables and figures): first three

letters (Jan.,...,Dec)

registered trademark ®

trademark ™

United States (adjective) U.S.

United States of America (noun) USA

U.S.C. United States Code

U.S. state use two-letter abbreviations

(e.g., AK, WA)

Measures (fisheries)

fork length	FL
mid-eye-to-fork	MEF
mid-eye-to-tail-fork	METF
standard length	SL
total length	TL

Mathematics, statistics

all standard mathematical signs, symbols
and abbreviations

alternate hypothesis H_A

approximately ~

base of natural logarithm *e*

catch per unit effort CPUE

coefficient of variation CV

common test statistics (*F*, *t*, χ^2 , etc)

confidence interval CI

correlation coefficient (multiple) *R*

correlation coefficient (simple) *r*

covariance cov

degree (angular) °

degrees of freedom df

expected value *E*

greater than >

greater than or equal to ≥

harvest per unit effort HPUE

less than <

less than or equal to ≤

logarithm (natural) ln

logarithm (base 10) log

logarithm (specify base) log₂, etc.

mean $\bar{x}$

minute (angular) '

not significant NS

null hypothesis H₀

percent %

plus or minus ±

population size *N*

probability *P*

sample size *n*

second (angular) "

standard deviation σ or *s*

standard error (of the mean) *s* $\bar{x}$

type I error probability *P_a*

type II error probability *P_b*

variance σ^2 or *s*²

TECHNICAL PAPER NO. 425

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ABSTRACT

Three separate fish camps referred to collectively by New Stuyahok residents as Lewis Point are named First Place, Second Place, and Third Place. New Stuyahok residents have used these subsistence salmon fishing camps since at least the 1960s, and likely much earlier. In the 1980s, Alaska Department of Fish and Game (ADF&G) research indicated that a substantial portion of the village moved to Lewis Point for the summer salmon fishing season. Since that time, the use of Lewis Point as a long-term fish camp has declined except at Second Place. Located at the geographical feature identified as Lewis Point along the lower Nushagak River, First Place in the past was the focal point of subsistence salmon fishing. Approximately 10 habitable cabins were located there with only 2 of them occupied in 2009. Four maintained cabins were occupied during the entire season at Second Place, which is where researchers stayed and focused their research. Third Place had 3 potentially habitable cabins, one of which was occupied during part of the season.

Research in 2009 documented that Lewis Point was still an important location for the harvest of Chinook salmon by many New Stuyahok households. During the peak of the Chinook run households travel to Lewis Point from New Stuyahok, attempt to catch the amount of Chinook salmon they need for a year in a day or 2, and return to New Stuyahok to process the harvested fish. Fast and efficient skiffs with outboard motors make this possible without requiring extended stays away from home. In some cases, returning to New Stuyahok is essential to maintain jobs that were not available in the community in the past. Extended families use Second Place and it is a viable, healthy, and productive fish camp where multiple generations work together to catch and process subsistence salmon harvests. The older generations of grandparents and parents share and exhibit the cultural traditions and values of the subsistence way of life with teenage and younger children. It is important to these elders that the knowledge and cultural traditions that they grew up with are passed on to the younger generations.

Researchers rented an unused cabin at Second Place to stay in, were welcomed by the residents and treated as viable fish camp participants. Funding was through ADF&G general funds and the research was timely since it provided customary and traditional use information, a Division of Subsistence mandate, to the Alaska Board of Fisheries for the December 2009 Bristol Bay Finfish meeting.

Key words: elders, First Place, fish camp, king salmon, knowledge, Lewis Point, New Stuyahok, Second Place, subsistence way of life, Third Place, cultural traditions

1. INTRODUCTION

This report describes the subsistence salmon fishing activities and strategies of fishers at a fish camp at Lewis Point, Alaska. This seasonal fish camp on the Nushagak River in southwestern Alaska is used primarily by Yup'ik residents of New Stuyahok, a community located approximately 80 miles upriver from the camp. The project fieldwork occurred in June 2009 and focused on subsistence fishing and processing activities as an integrated core of New Stuyahok residents' "subsistence way of life." For this report, the phrase "subsistence way of life" is used to encompass the multiple dimensions and deeper meaning of subsistence for the people who fish at Lewis Point for not only economic production, but also to espouse continuity in tradition and recognize the inseparability of subsistence from identity and spirituality. This connection was expressed on a T-shirt worn by a person fishing at Lewis Point that read, in bold print: "*Subsistence feeds our families ... and our souls*" (Plate 1-1). The people at Lewis Point expressed their beliefs about the importance of subsistence in myriad ways during the course of this research project.



Photo courtesy of Nick Hall Photography, 2009

Plate 1-1.—Subsistence fisherman at Lewis Point wearing a T-shirt showing a slogan for the “subsistence way of life.”

ORGANIZATION OF THE REPORT

This report is organized into 3 sections, “Background,” “Methods,” and “Findings.” The background section offers a description of the historical occupation and use of Lewis Point through time in addition to the broader historical events that occurred in the region.

The methods section details the research methods and the guiding ethnographic principles employed in this project. In addition to describing the research process, the methods section also discusses the role of research in establishing relationships between the residents of Lewis Point and the project researchers, and, in a wider context, the rapport established between subsistence users and the state management agency. Some of the advantages of in-depth research with a small subset of people are also discussed, such as the formation of a strong basis for future work with the community and the enhancement of communication and outreach.

The findings section presents the synthesis of information gathered during this project and explores the subsistence way of life at Lewis Point through a description of daily operations and documentation of the social structure of the camp. The duties, daily tasks, and organization of camp members are described in relation to the demographic profile and members' places in the kinship system of the camp. A description of the mechanics and harvest techniques of the fish camp is also presented, which details species selection, timing, location, harvest quantities, gear types, and methods. Fish processing and preservation methods are also discussed.

The findings are ultimately linked to the background information in an effort to contextualize contemporary subsistence fishing patterns at Lewis Point in relation to long-term trends and historical change in the region.

PURPOSE OF THE PROJECT

The purpose of this report is to provide information that would assist fishery managers in allowing reasonable opportunity for subsistence fishing, and to provide documentation of subsistence fishery uses for the community of New Stuyahok. This report also serves to complement quantitative harvest data with a qualitative, ethnographic description of the Lewis Point fish camp. Since the 1960s, the number of salmon harvested for subsistence in the Bristol Bay region has been recorded through a permit program administered by the Alaska Department of Fish and Game (ADF&G) (Fall et al. 2009:64). These data, and the patterns revealed through analysis of the data, can be better understood when analyzed in concert with information about the forces shaping those patterns and the factors driving trends in the fishery. An in-depth description of the fishery provides information to resource managers that can be used to support appropriate regulatory frameworks that accommodate customary and traditional uses and are responsive to changes in harvest methods, harvest locations, timing of harvests, quantities harvested, and species targeted, as well as to changes in the social organization of production activities and the distribution and exchange of harvests. In-depth, contextual information such as what this report provides is essential for responsive, culturally sensitive, and effective management of fishery resources.

Ethnographic inquiry is also effective in identifying and defining the parameters of issues that have not yet surfaced through other methods of research and data collection (e.g., the permit program and harvest assessment surveys), or that have not yet been communicated to researchers or managers in other forms, such as through public commentary. An in-depth ethnographic study can lay the framework for the development of research questions and hypotheses that would otherwise not be identified. This report engages this facet of ethnography by exploring harvest methods at Lewis Point that were previously undocumented by ADF&G. Additionally, by participating at the fish camp, researchers strengthened rapport with the community of New Stuyahok, and established grounds for increased communication and collaboration between ADF&G and community members.

STUDY AREA

New Stuyahok and Lewis Point are situated on the west bank of the Nushagak River, or the right side as one travels downriver (Figure 1-1). New Stuyahok lies approximately 80 miles upriver from Lewis Point, which is 10 miles upriver of the confluence of the Wood and Nushagak rivers where they transition to Nushagak Bay. Most settlements on the river have occupied the west bank since it is relatively stable, more resistant to erosion, and offers beaches with more rocks than mud; Lewis Point is situated on a

rocky bank where the beach is firm and gravelly. The tide has considerable influence at Lewis Point and water levels can drop enough to leave skiffs anchored offshore sitting dry on the riverbed. At nearby Snag Point (approximately 10 miles downriver from Lewis Point), where tides are formally measured, high tides reach in excess of 23 feet. The tidal influence and the channels in the river play a major role in the activity and travels of the people staying at Lewis Point. Upriver from Black Point, the river narrows into a braided stream with tidal influence reaching upstream to Portage Creek.

The river system is situated in a generally low, flat basin with forests of spruce and deciduous trees in the lowlands close to the river and open tundra in the rolling uplands (Schichnes and Chythlook 1991:9). New Stuyahok is located in a climatic transition zone that is predominantly a maritime climate but modified by the climatic influence of Interior Alaska. Cloudy and overcast skies, mild temperatures varying from averages of 30 °F to 66 °F in the summer and 4 °F to 30 °F in the winter, moderately heavy precipitation, and strong east winds coming from the coast are characteristic of the Lewis Point locale (Schichnes and Chythlook 1991:10). Lewis Point is in a position near the bay where the maritime influence is greater than that of the upriver, inland ecosystem.

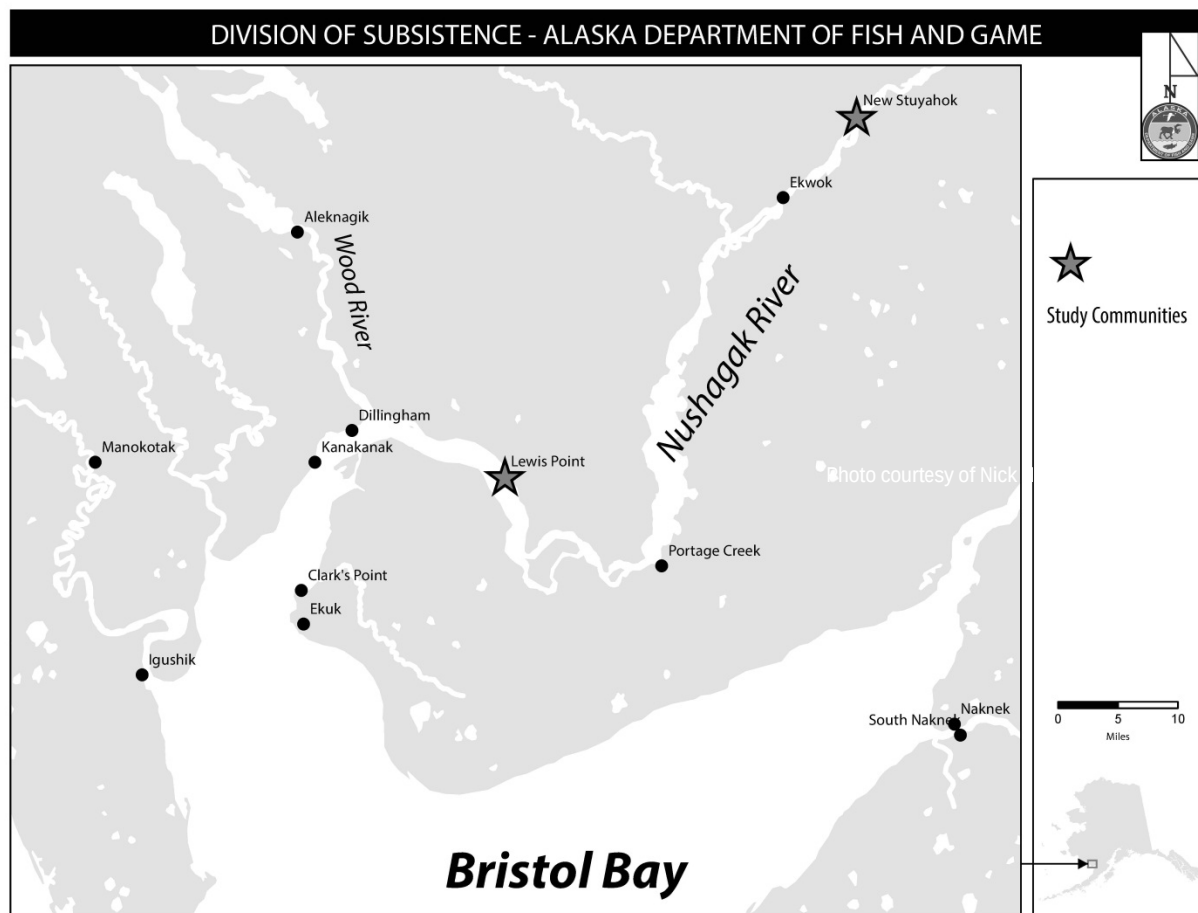


Figure 1-1.—Map of study area.

2. BACKGROUND

In the mid- to late 1960s, James VanStone, an archaeologist and ethnohistorian, conducted the most extensive anthropological research of the Nushagak River region. Two of his publications are mentioned here as primary reference sources: *An Annotated Ethnohistorical Bibliography of the Nushagak River Region, Alaska* (1968) and *Eskimos of the Nushagak River: An Ethnographic History* (1967).

The Alaska Natives inhabiting communities on the Nushagak River during the 19th century lived in permanent communities along the river in the winter but relocated to inland hunting and trapping camps in the spring. As summer neared, the people returned to the river to fish for salmon, and, in the fall, again relocated to inland hunting and trapping camps (VanStone 1971:20). This pattern changed when the Russians and later the Americans developed commercial enterprises in and around Nushagak Bay.

At the beginning of the 19th century, the Russians established a trading post on Nushagak Bay approximately 8 miles from the mouth of the Nushagak River (VanStone 1967:6). The presence of the post attracted Native people who altered their seasonal pattern to include a visit to Nushagak Bay in order to exchange furs for commercial goods, as well as to trade with coastal Natives who had access to marine products such as seal oil (VanStone 1967). Establishment of the commercial salmon fishery in 1884 increased the opportunities to trade as well as opportunities for wage employment. As more Native people became involved in the commercial fishing industry, Native communities along the Nushagak River became more sedentary and less seasonally occupied for hunting and trapping (VanStone 1971:143–144). The economic opportunity of the commercial fishery increased the shift in seasonal patterns as more Native people, including families from the Nushagak River, began to stay at summer camps along the bay to fish for salmon and work for the commercial fishery (VanStone 1967:128).

Between 1920 and 1940, the scattered fish camps and villages began to coalesce around missionary churches and schools so that after 1940, river settlement patterns began to resemble the contemporary pattern, which has also been influenced by increased government involvement in the society and communities of the region (VanStone 1971:131).

Today, Alaska Native people along the Nushagak River live in centralized communities that include a church, a school, and often a store. Fish camps have persisted into 2009, but hunting and trapping camps that were traditionally occupied in the spring and fall are no longer commonplace. Lewis Point is an example of a fish camp that has persisted, although the way it is used has changed over the past 3 decades, which is discussed in the section “Findings.” It is important to understand how contemporary uses of the fish camp have been influenced by the history of the Nushagak River and Nushagak Bay. What follows is a history of the occupation of Lewis Point.

BRIEF HISTORY OF LEWIS POINT

VanStone, in his book *Eskimos of the Nushagak River: An Ethnographic History*, states that beginning in 1963, families from:

New Stuyahok established a fish camp at Lewis Point on the north bank of the Nushagak about fifteen miles above its mouth. The subsistence fishery is thought to be better there than in the vicinity of Dillingham and at the same time the men can easily visit their families during the closed [commercial fishing] periods. The women have a good supply of dried salmon put up by the time the commercial fishing season is over. (VanStone 1967:137)

The 1963 activities may represent a change in the pattern of use of Lewis Point by New Stuyahok residents because of commercial fishing, but information in the historical record and from New Stuyahok respondents indicated that local people of Nushagak River villages had used Lewis Point since before the beginning of the 20th century.

Lewis Point is located on the north shore of the Nushagak River approximately 13 miles on a straight line east-southeast of Dillingham. New Stuyahok residents use 3 separate fish camps that they refer to collectively as Lewis Point. Each of these camps is named: First Place is located at the geographical point of Lewis Point; Second Place is approximately 1 mile upstream (Plate 2-1); and Third Place is located an additional 1 mile upstream from Second Place. During summer 2009, fish camp residents from New Stuyahok also identified Fourth Place, which they said was approximately 4 miles upstream from Third Place. One cabin was located at Fourth Place, and, although in the past it had been occupied year-round, in recent times it has not been used as a fish camp.



Photo courtesy of Nick Hall Photography, 2009

Plate 2-1.—Fish camp at Lewis Point, Second Place.

The Yup'ik name for Lewis Point is *Nunaurluq* (“Nu-nah-ga-luk”), which translates to “poor old land” (Wassillie Hanson, Nick Gumlickpuk, Charles Gumlickpuk, Tim Wonhola, and Sacally Wonhola) (Francesca Demoski, Land Manager, Bristol Bay Native Corporation, Anchorage, Aug. 11, 2009, personal communication).

Lewis Point and variants of this place name (e.g., Louis Point, *Nunaholook*) have been mentioned numerous times in reports, papers, maps, and diaries produced throughout the 20th century. Lewis Point is mentioned as early as 1906 in a report about the territorial fisheries (Department of Commerce and Labor, Bureau of Fisheries 1907:35). The 1910 (13th) U.S. census survey conducted by Lemuel H. French (more information about Dr. French is located in Appendix C) at Nunaholook in February 1910 enumerated 2 households with a total of 8 individuals ranging in age from 5 to 73 years old. The “Tribe and Clan” column of the census identified each individual as “Eskimo—*Kuskwogmiut*.” The 1920 (14th) U.S. census survey conducted by Walter S. Craig at Lewis Point on April 1, 1920, enumerated 4 households with a total of 13 individuals ranging in age from 3 to 50 years old. All of the names listed appear to be Native names and the birthplace of the mother and father of all the individuals was Alaska. The 1930 (15th) U.S. census conducted by Frank Waskey at “Louis Point Village 14 miles E. of

Dillingham P. O.” enumerated 3 households with a total of 10 individuals ranging in age from 5 to 45 years old. All of the names listed appear to be Native names and each individual and their mother and father were all listed as “Inuit” (Rollins 1978).¹

The *Dictionary of Alaska Place Names* has 2 listings for Lewis Point (Orth 1971rep.:573). One is designated as a “locality,” which is defined as “a place or location with past or present cultural associations,” and the other as a “point of land,” which is defined as “a protuberance of land along the shore of a lake, river, or sea or along the side of a hill, mountain or ridge, or glacier; a projecting or tapering piece of land” (Orth 1971rep.:VIII–IX). The locality of Lewis Point states: “Eskimo settlement or camp reported in 1924 by U.S. Board of Fisheries” (Orth 1971rep.:573). A U.S. Department of Interior Geological Survey map surveyed in 1930–31 and dated 1938 shows Lewis Point with a cluster of 5 cabins.

Alaska Road Commission reports from the 1920s make reference to Lewis Point on several occasions. An official Alaska Road Commission shelter cabin was constructed at Lewis Point in 1924 or 1925 and the travel route 92I was renamed “Lewis Point to Naknek” in 1925, which likely reflects the increased importance of Lewis Point (Board of Road Commissioners for Alaska 1925:70–71). The name change may also indicate the decreasing importance of the community of Nushagak. VanStone (1967:19) notes that the regional center of Nushagak, which was located at the Russian trading post of Aleksandrovskii Redoubt (which had been established in 1818), was in decline shortly after the turn of the century because the population center moved to the opposite side of the Nushagak River to the present-day Dillingham area.

At the time of this study, Choggiung Limited, the Alaska Native village corporation for Dillingham, Ekuk, and Portage Creek, owns the land that borders the lower Nushagak River, including the Lewis Point fish camp land. The corporation deeded land to the Association of New Stuyahok in 1991 because of the sites’ past use and importance as fish camps (Rick Tennyson, Land Manager, Choggiung Limited, Dillingham, Alaska, August 2009, personal communication). In 2009, First Place had approximately 10 cabins that were either suitable for habitation or could be made habitable, as well as 5 Russian Orthodox crosses designating grave sites. In 2009, at Second Place, 5 cabins that were habitable and 1 possible foundation depression that was overgrown with disturbance grass was mapped along with other, more recent structures. At least 1 respondent at Second Place indicated knowledge of the possibility of the presence of older structures in that part of the fish camp. Third Place had 3 potentially habitable cabins in 2009; one was used in summer 2009 and another one may have been used previously. A disturbance grass area at the east end of the camp indicated the possibility of older activity at the site.

1. Enumeration sheets from the U.S. census surveys for 1910, 1920, and 1930 provided details under column headings for each named individual living in a household. The column headings for the 1910 census are: Relation; Personal Description; Tribe and Clan; Nativity; Citizenship; Occupation, Trade, or Profession; Education; and Ownership of Home. The 1920 and 1930 census’ recorded similar information but the formats of the census sheets are slightly altered for each census.

3. METHODS

Information for this project was gathered largely through participant observation, a method in which researchers participate in the daily activities of the study group in an effort to gain a more intimate understanding of the group's collective way of life. The cultivation of personal relationships is inherent in participant observation as a research method, offering the additional benefit of increased rapport with the community at large. Information was also collected through formal and informal interviews with camp and community members, and 1 informal focus group with camp youths. Fieldwork was conducted by 2 ADF&G Subsistence Resource Specialists, Theodore (Ted) Krieg and Jory Stariwat, from the Division of Subsistence. Krieg was based out of the Dillingham office and Stariwat was based out of Anchorage. In May 2009, Krieg introduced the project to the New Stuyahok Traditional Council and subsequently gained approval for the research. An information sheet with project dates and objectives was mailed to all post office boxes in the community of New Stuyahok to inform and prepare residents for the arrival of the researchers (Appendix A).

Krieg arranged travel and accommodations for the research period in June 2009. The researchers boated to Lewis Point from Dillingham on June 10, stayed in a small cabin at the area until June 28, and then boated upriver to the community of New Stuyahok, where they stayed until July 1, 2009. Additional data were collected by on-the-ground mapping of the Lewis Point area and use of a Global Positioning System (GPS) device to locate and record latitudes and longitudes of those fishing sites that were active on June 29.

At Lewis Point, the researchers stayed in the camp referred to as Second Place. The researchers rented an unused cabin for a 3-week stay, in which time they became functioning members of the fish camp with assigned roles and responsibilities. Their responsibilities became increasingly important because the commercial fishing openings were extended and men and teenage boys remained in the bay to fish, leaving those remaining at camp with additional tasks. Both researchers assisted the few people that remained at camp by helping to pack water in 5-gallon buckets, collect and cut firewood, set and pull nets, and carry totes of discarded fish parts, among other general tasks. Without the assistance of the researchers, these tasks would have been additional duties for the others who remained at the camp, or would not have taken place until the others returned from commercial fishing. It was through participation in these types of tasks that the researchers established a strong foundation for the relationships they formed with respondents, and it was through personal interactions and participation in the camp life that the researchers gained much of the knowledge for the project. By spending time in the camp and participating in the daily duties and tasks, the researchers were immersed in the cultural milieu of the camp, and systematically observed and recorded activities and the structural basis for organizing activities.

Due to an open invitation to stay at Second Place and respondents' support for the project, efforts were focused there; therefore, the descriptions in this report apply primarily to activity at Second Place. Third Place was not visited because the fishers who used it only stayed for a short time during the high-intensity period of fishing effort; First Place was visited briefly. Although respondents at Second Place reported crowding and noise as the primary reasons for the separation of the camps, the camps remained distinct even in 2009, when crowding and sharing space were not an issue.

Nine formal interviews were also conducted at Lewis Point in which researchers asked for personal histories and rationales/justifications for the continued use of Lewis Point as a fish camp. The formal interviews were recorded with a digital voice recorder when respondents gave consent; otherwise, written notes were taken as the primary source of documentation. Honorariums were paid to all respondents. A loosely structured, informal focus group was also held with the youth at the camp. It was attended by 15 participants ranging from 5 to 17 years of age, and these participants represented a large portion of the youth at the camp. Four children were not present for the focus group and their parents or other supervisory adults gave permission for them to be interviewed independently. The children and teenagers

were asked what they liked and disliked about the camp. They were also asked questions soliciting their histories of involvement with Lewis Point, and their intentions for the future relative to fishing, the fish camp, and employment. All participants received honorariums through parents or supervisory adults.

In addition to the formal interviews, the focus group, and participant observation, the researchers traveled upriver to the community of New Stuyahok where they conducted informal interviews with people who fished from the vicinity of New Stuyahok, and spoke with people who used to go to the Lewis Point fish camp.

These ethnographic research methods were approved by Lewis Point residents, who explained that, for them, their subsistence way of life could and should not be learned through books or written text: it had to be learned through experience. The research centered on engagement with the camp, drawing information from systematically documented experiences and observations, in addition to more guided inquiry and questioning. These methods also allowed for flexibility in the research, which was necessary for the exploratory nature of the work. Because researchers remained flexible, respondents were better able to express the importance of the fishery and the issues they faced in a familiar and comfortable way rather than through formal forums or meetings. In a sense, the researchers were treated as if they were subsistence practitioners while maintaining their roles as agency researchers. This form of learning by researchers embraced effective and respectful cross-cultural communication where the information and data were gathered in ways similar to how the youths at the camp learned: through experience and informal instruction, with an emphasis on observation and participation instead of lectures or spoken instruction. The research methods also cultivated strong relationships between the researchers and respondents at Lewis Point; in fact, there were invitations by respondents at Lewis Point for researchers to return in following years to take part in fish camp annually. The researchers, as evidenced by the invitations to remain in contact with respondents on a personal level, created a relationship that can act as a conduit for outreach and educational exchanges on fishery management topics. Because camp dynamics were largely guided by kinship, some Lewis Point respondents jokingly referred to the researchers by kin terms, such as “son” or “brother.” The kin references underscore how researchers were incorporated into camp operations, thus affording better opportunity to perform as researchers for the Division of Subsistence.

The project afforded researchers the opportunity to interact with people from diverse age groups while having ample time to explain management processes, research methods and goals, and regulatory rationales simultaneous to conducting research. Participant observation fostered a setting in which information and knowledge flowed reciprocally through means that were conventional and customary to the research participants, unlike a formal meeting format that is often centered on a particular issue and can accelerate the polarization of arguments. The benefits of this project’s methods should be considered in future project designs, particularly when little recent work has been conducted in a study area. The project’s in-depth method of participant observation gathered data and information and established a relationship with respondents that can serve as grounds for future work and collaboration between the agency and the community of New Stuyahok.

Additional research methods included reviews of relevant literature, archival documents, and photographs that documented and discussed the people and history of the Nushagak River area and salmon fishing culture in general. Literature on the biology and ecology of salmon was also reviewed (Appendix B).

4. FINDINGS

The Nushagak River and Nushagak Bay of southwestern Alaska support substantial subsistence, sport, and commercial fishery harvests of salmon. Available data at the time fieldwork concluded show that in 2008, approximately 51,000 salmon were harvested (as estimated based on reported harvests from subsistence permits) in the Nushagak District (Fall et al. 2011rev.:77), and under sport fishing regulations an estimated 22,300 salmon were harvested (based on returned sport fishing surveys) from Area T (Nushagak, Togiak, and Wood river areas) (Jennings et al. 2010:53, 126); and the estimated commercial salmon catch for 2009 for the Nushagak District of the Bristol Bay management area was approximately 8.5 million salmon (Morstad et al. 2010:51). From the overall estimated subsistence harvest of 51,395 salmon in 2008, residents of New Stuyahok harvested about one-tenth (5,755 salmon) of the harvested salmon in the Nushagak District (Fall et al. 2011rev.:79).

New Stuyahok is the most populated of the Nushagak River villages (Alaska Department of Labor and Workforce Development n.d.). Estimated subsistence salmon harvests from subsistence salmon permit returns for 2008 indicated harvests of 58 salmon for Portage Creek, 1,902 salmon for Ekwok, 5,755 salmon for New Stuyahok, and 4,423 salmon for Koliganek (Fall et al. 2011rev.:79). The per capita harvest of salmon for New Stuyahok in 1987 was an estimated 409 lb (Schichnes and Chythlook 1991:84). In 2005, the per capita harvest of salmon for New Stuyahok was estimated to be 188 lb (Krieg et al. 2009:200). In 1973, it was estimated that 175 lb per capita of salmon were harvested (Krieg et al. 2009:250). As noted in Krieg et al. (2009:250–251), “Subsistence permit holders from New Stuyahok averaged harvests of 174 lb per person per year for 1983–2005. However, average annual harvests dropped from 257 lb per person per year in the 1980s, to 162 lb per person per year in the 1990s, and 122 lb per person per year in the 2000s.”

Permit data also suggest that residents of New Stuyahok are fishing closer to the community compared to the 1980s, when Lewis Point was the predominant harvest location.² In 2006, subsistence permit data showed that an estimated 2,238 salmon were harvested at Lewis Point (Table 4-1). Given the likelihood that all or most of these salmon were harvested by residents of New Stuyahok, harvests at Lewis Point represent up to 36% of the community’s total harvest of 6,160 salmon in 2006 (Sands et al. 2008:111).

DEMOGRAPHICS

New Stuyahok

According to members of the New Stuyahok Traditional Council, the population of New Stuyahok was upward of 500 people in 2009, and the Alaska Department of Labor and Workforce Development estimated that New Stuyahok had a population of 481 in 2008 and 510 in 2009 (Alaska Department of Labor and Workforce Development n.d.). Community residents reported that the population had been growing since the establishment of the community in 1942, an observation echoed by VanStone’s observations in the 1960s when he wrote: “New Stuyahok grew rapidly after 1955 and is now by far the largest community on the river. The rapid recent growth is doubtless partly due to the large new school that opened in the fall of 1960” (VanStone 1967:147). Along with the construction of the school in 1960, a post office and airstrip were constructed. According to the Alaska Community Database, the community population increased by 40% in the 1960s.³ Construction of the community’s third and largest school began in the summer of 2007 to accommodate the growing population, which in the preceding years was

2. Alaska Subsistence Fisheries Database (ASFDB), which contains harvest data organized by species, year, community of residence of permit holder, and location of harvest. ASFDB data are not published online, but are available by request from the Division of Subsistence.

3. Alaska Department of Commerce, Community, and Economic Development (ADCCED) Division of Community and Regional Affairs, Juneau. n.d. “Alaska Community Database Online: Community Information.” <https://www.commerce.alaska.gov/dcra/DCRAExternal/community/Details/e12f5cec-01a1-48cb-97e8-a0efd9c45949> (accessed August 2009).

markedly stacked with young residents (Krieg et al. 2009:195). Of the estimated 2005 population of 421 people, 42% were under the age of 20 (Krieg et al. 2009:194). This trend was similarly documented for study year 1987–1988 by Schichnes and Chythlook (1991:42) who wrote, “[m]ost of New Stuyahok’s sampled population was young clustered between the ages of 10 and 49.”

Along with a relatively young population through time, New Stuyahok has also maintained a gender imbalance, with a larger percentage of males—particularly youths. In 2005, males accounted for 59% of the total estimated population and females composed 41% (Krieg et al. 2009:196). In the cohort of 15- to 19-year-old residents, an even greater disparity existed, with males representing 62% of the cohort and females 38%. In the 1987–1988 study year, the estimated male-to-female ratio was less dramatic compared to the 2005 population estimate: in the earlier study, the estimated population was 54% male and 46% female. By comparison, the sampled⁴ population gender ratio was 59% male and 41% female for the 1987–1988 study, which is the same as the ratio for the estimated population for 2005.

Lewis Point

The population for 2009 for Lewis Point was calculated by defining a resident as a person who stayed overnight at the camp for more than 1 week in order to account for the short-term, seasonal nature of residency at the fish camps. In this context, those staying for less than 1 week were considered visitors.

Second Place was the only camp where population was systematically recorded at Lewis Point in 2009. However, from on-site observations and using the definition of a Lewis Point resident, the populations at First Place and Third Place were estimated at 20 to 30 residents and 3 to 8 residents, respectively. Thirty-two people resided at Second Place in summer 2009. The male-to-female sex ratio at Second Place was 21 males to 11 females, or 66% male and 34% female⁵ (Figure 4-1). The sex ratio at the camp may have been the result of a disproportionately large percentage of male grandchildren in the families and the pre-existing demographics of New Stuyahok, but also because some of the men apparently traveled to camp primarily as crew members for the commercial fishing season; 3 male crew members in their 40s and 50s are identified in the kinship diagram separate from the 4 residential units (Figure 4-2). Four of the teenage or younger males were on the commercial boats for at least part of the commercial salmon season. Respondents said that it is not uncommon for women to work on fishing boats in Bristol Bay, but it is rare for women from New Stuyahok to work on a boat. Most New Stuyahok women employed through the fishing industry worked in the canneries, they said. When questioned about future employment aspirations, the female youth at Second Place related that they had no interest in working on commercial fishing boats. Thus, the people accompanying families to Lewis Point to primarily work as commercial fishing crew members have generally been male, which provides some explanation for the disparity in the sexes in 2009.

Third Place, on the other hand, was composed of a small group of related females. The husband of the female head of the camp could not travel to Lewis Point due to health problems. Therefore, the all-female camp was probably not the product of social forces but instead due to health issues, and respondents did not regard the situation as ideal. From these basic observations, researchers presumed that the sex ratio at First Place was similar to that of the community of New Stuyahok. The sex ratio at Lewis Point is easily swayed because of the small population, where 1 person can make a substantial difference in percentages; but what is clear, however, is that beyond coincidence, more men and boys traveled to First Place and Second Place than women and girls.

4. The sampled population represents data collected from surveyed households whereas the estimated population is an estimated value that is expanded from data collected for the sampled households.

5. Percentages are rounded to the nearest whole number.

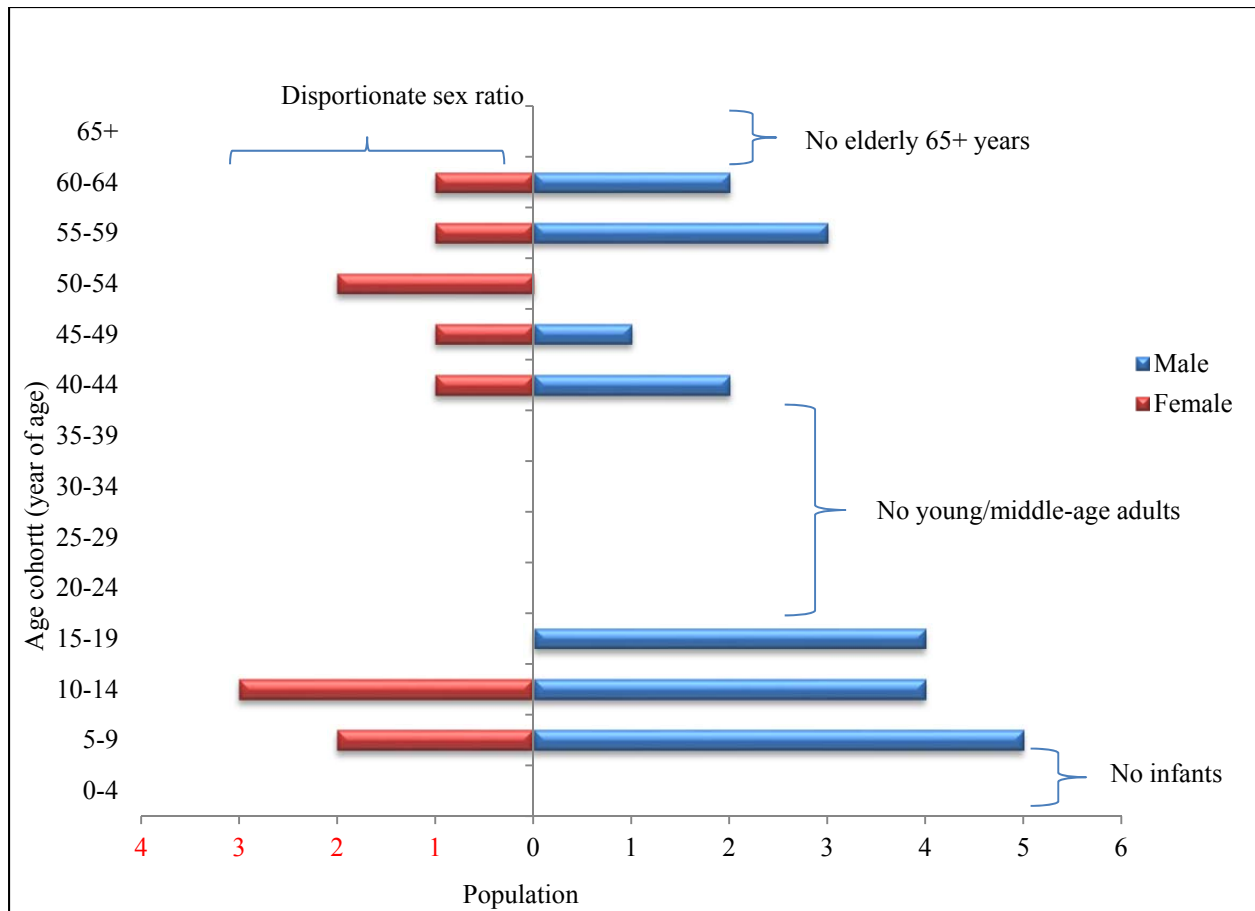


Figure 4-1.—Population profile, Lewis Point: Second Place, 2009.

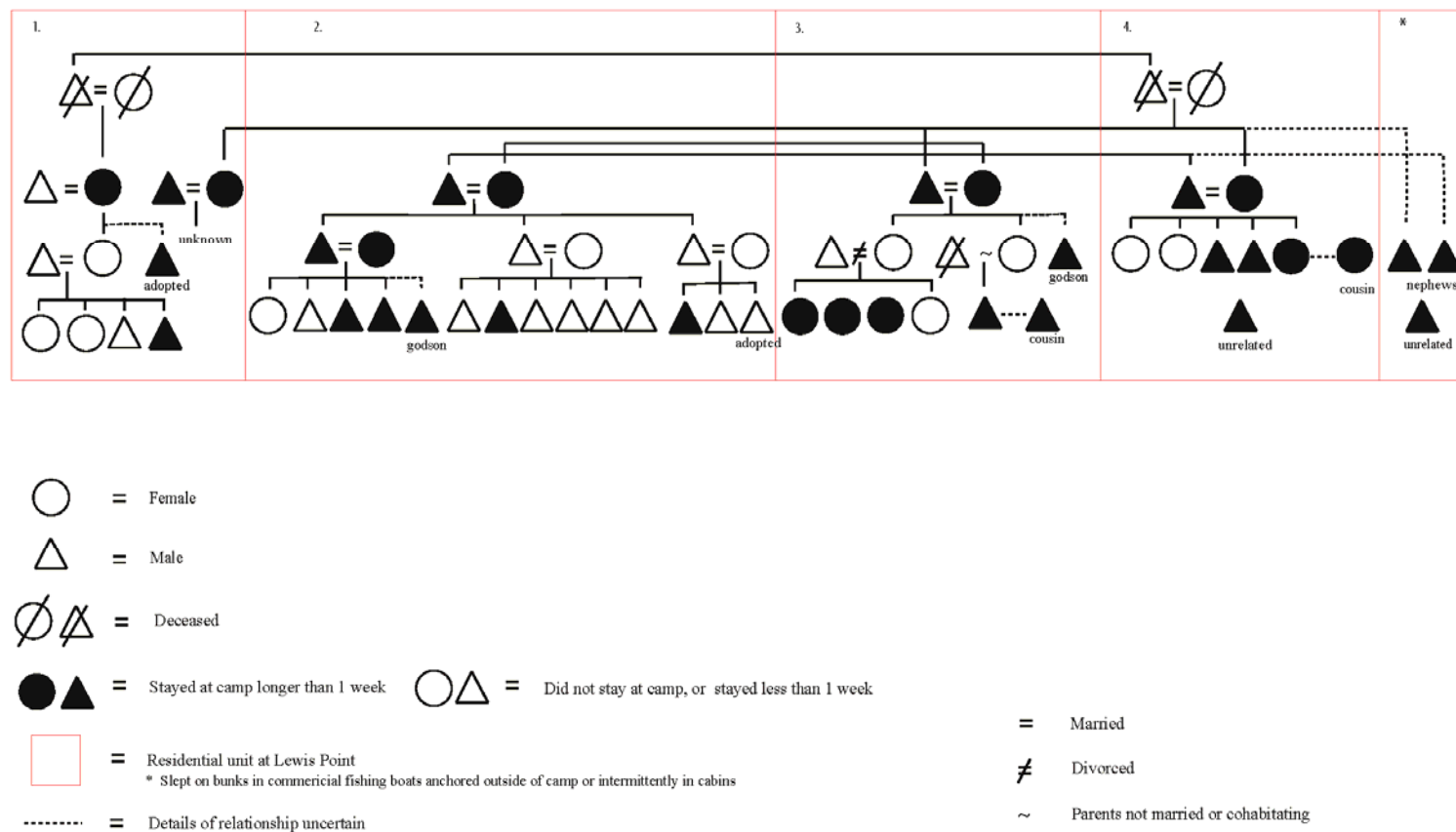


Figure 4-2.—Kinship diagram, Lewis Point: Second Place, 2009.

The age cohorts at Lewis Point were strongly influenced by social and economic dynamics, and more clearly deviated from demographics of New Stuyahok. Only the age cohorts of 5- to 19-year-olds and 40- to 64-year-olds were represented at Second Place (Figure 4-1). The residents of First and Third places were presumably of similar age, and, with the exception of one man in his 70s who stayed at First Place, no people over the age of 65 stayed at Lewis Point in 2009. On the other end of the spectrum, no infants or toddlers (0 to 4 years of age) were brought to Lewis Point. The often cold and damp weather, uninsulated cabins, and steep banks at the camps create conditions that many people considered too harsh for infants and the elderly. The practice of leaving infants and elderly family members at home in New Stuyahok has been accommodated in recent years because larger numbers of people have stayed in the community and were available to help provide care so others could travel to fish camps.

A more striking demographic component missing from the Lewis Point camp was that of young adults. No one between the ages of 20 and 39 stayed at Second Place in 2009 for more than 1 day or 2, and with some degree of certainty, the same can be said for First Place and Third Place. At Second Place, in addition to the lack of young women in the 20- to 39-year-old age range, no females between 15 and 19 were present (Figure 4-1). The range of ages present at the camp in 2009, and in recent years, was likely the result of complex economic, social, and technological factors; however, further research is necessary for a complete analysis of the various conditions that have shaped the demographic makeup of Lewis Point.

USE TRENDS OF LEWIS POINT

According to respondents, the proportion of the New Stuyahok population that uses Lewis Point as a fish camp has changed over the decades of the camp's existence. The age sets represented at Lewis Point have changed as well. New Stuyahok respondents reported that in the early 1980s, all but 3 families relocated to Lewis Point for the summer fishing season. The families that stayed behind in the community were those of the U.S. postmaster, who continued to work at the post office through the summer, and 2 families that did not have a boat or otherwise had reasons to remain in the community during the fishing season. The population of New Stuyahok in 1980 was 331 (U.S. Department of Commerce Bureau of the Census 1981:3–10). Three families likely would have constituted somewhere in the range of 15–30 individuals who did not go to Lewis Point, so it is reasonable to assume that as many as 300 people moved to Lewis Point during the summers of the early 1980s. In a conservative estimate, this would mean that approximately 90% of the New Stuyahok population resided at Lewis Point seasonally. Research from 1982 to 1983 and reported by Wolfe et al. (1984:333) and by Schichnes and Chythlook (1991:112) in 1987 indicated that about one-half of families reported having fish camps, many of which were located at Lewis Point. At the time this research was conducted in 2009, only about 60 people resided seasonally at Lewis Point, despite New Stuyahok's continually growing population. Using the Alaska Department of Labor and Workforce Development estimate of 510 residents in 2009 (Alaska Department of Labor and Workforce Development n.d.), and drawing from 2009 field observations that approximately 60 people relocated to Lewis Point for the summer, calculations show that approximately 12% of the New Stuyahok population used Lewis Point as a seasonal camp in 2009, a vastly lower proportion than that of previous years, particularly the early 1980s.

This, however, is not to say that Lewis Point was not used extensively in 2009, since many fishers boated downriver from New Stuyahok to the Lewis Point area for short fishing trips lasting about 1- to 2 days. Instead, the researchers' observations and accounts from respondents illustrate that the use of Lewis Point as a fish camp has changed. Lewis Point continues to remain an important fishing location both as a seasonal camp, as it has been historically used, and as a prime spot to harvest salmon on short trips from the community followed by a return trip home to process the harvest or to fish in other locations.

SUBSISTENCE SALMON HARVEST TECHNIQUES AND STRATEGIES, AND SALMON HARVEST PROCESSING METHODS

In this section a description of the mechanics and operations of Lewis Point respondents' subsistence fishing strategies is presented, and these are discussed in relation to the timing of harvests and quantities and species targeted. Fish processing and preservation methods and strategies are also discussed. In addition to a description of the fishing methods of the Lewis Point fish camp, which were reported to be similar to the methods and techniques that have been employed at Lewis Point for decades, a discussion of New Stuyahok fishers' innovations and adaptations in fishing strategies is included, particularly how the use of drift gillnetting as a strategic harvest method is particularly adaptive to the changing environment and changing pattern of use at Lewis Point.

Subsistence Fishing Gear Regulations in Bristol Bay Area

According to regulations a gillnet is "a net primarily designed to catch fish by entanglement in the mesh and consisting of a single sheet of webbing hung between cork line and lead line, and fished from the surface of the water"; a set gillnet is a "gillnet that has been intentionally set, staked, anchored, or otherwise fixed"; and, a drift gillnet is "a drifting gillnet that has not been intentionally staked, anchored, or otherwise fixed" (5 AAC 39.105 (d) (1–3)). At the time of this project, the use of drift gillnets for subsistence salmon fishing outside the boundaries of a commercial fishing district was prohibited in the Bristol Bay Area under regulation 5 AAC 01.320 except in a portion of the Togiak River (5 AAC 01.320 (b) (1) (B)), specific dates and specific areas of Naknek Lake (5 AAC 01.320 (b) (2–4); 5 AAC 01.320 (b) (5) (A)) and in Iliamna Lake, Six Mile Lake, and Lake Clark, where [drift] gillnets or beach seines could be used (5 AAC 01.320 (b) (7)).

Harvest Timing

Subsistence salmon fishing at Lewis Point generally begins in late May or early June (June 1 is a typical date for relocation to Lewis Point). In 2009, residents of New Stuyahok moved to Lewis Point around June 6, following a traditional council meeting. Some families arrived later; they had planned to stay for a shorter period of time. Lewis Point and New Stuyahok respondents reported timing as one of the primary considerations when harvesting salmon. One of the key advantages of fishing at Lewis Point, they said, was the ability to harvest salmon earlier than was possible when fishing upriver near New Stuyahok. Harvesting early in the season was considerably important to the respondents.

Respondents described Lewis Point as an advantageous fishing site because salmon could be harvested early in the season while they are closer to the ocean stage, which respondents characterized as "sea bright" salmon. Respondents said these fish were "oilier" and "fatter" than fish caught upriver later in the season. The high quality of the harvest, respondents said, made Lewis Point a strategic location, even though it was 80 miles downriver from New Stuyahok. Early season harvest timing also allowed fish to be hung on drying racks and smoked before the blow flies became prevalent. The flies lay eggs on the hanging fish strips, which can lead to spoiling and loss of the meat.

Early harvests were also beneficial for the fishers who coordinate subsistence and commercial fishing efforts, respondents said. Commercial openings generally begin as the runs strengthen and the season progresses. If fishers can harvest a substantial portion of their subsistence goals before commercial openings, the dual effort can be simplified and there are fewer overlapping responsibilities, respondents said. Early harvest effort also aids in species selection by allowing fishers to reach harvest goals for Chinook salmon *Oncorhynchus tshawytscha*, the primary and traditional species targeted, before the run becomes mixed with sockeye (*O. nerka*) and chum salmon (*O. keta*).

In 2009, many of the camp residents stayed into mid-July while others left at earlier dates for various reasons. Some said they left early to pursue potential employment opportunities, some of the youths left because they said they were homesick or bored, and some people left early for other personal reasons.

The population of Lewis Point was highest during the peak of the salmon runs; peak run time was predicted by the number of salmon being caught at Kanakanak Beach, which is downriver from Lewis Point near Dillingham. When people located at communities situated upriver from Kanakanak Beach heard news on June 18 that around 30 to 40 Chinook salmon had been caught in setnets downriver near Dillingham, they said that they knew the fish would reach Lewis Point within the next couple of days. Respondents also gauged the potential for large salmon harvests by the strength of wind blowing from the bay. Respondents reported that strong winds often brought strong pulses of fish, so nets were checked with excitement after east winds blew through the area.

Quantity and Species Targeted

As demonstrated in Table 4-1, Lewis Point supports substantial salmon harvests. Of the available permit data from 1987 to 2007, the largest estimated harvest at Lewis Point occurred in 1993 with 6,249 salmon harvested. The majority of the harvest was Chinook salmon (4,525). The estimated harvest based on permit return data varies considerably from year to year; however, there was a relatively low harvest estimate of 1,804 salmon harvested at Lewis Point in 2000. In 2000, the majority of the harvest was also Chinook salmon (1,051). Nevertheless, the Lewis Point harvest has remained significant through time, with some annual harvests exceeding those of the New Stuyahok area, particularly during the 1990s (Table 4-1; Table 4-2). Lewis Point harvests were also presumably much greater in the early 1980s and prior when, as discussed above, the majority of New Stuyahok residents relocated to the camp each summer.

In 2009, residents of Second Place had 7 set gillnets out prior to the peak of the run. The nets, placed at 25 fathoms or less, were anchored perpendicular to the beach, stretching into the water with some slack in the net since the effectiveness of a set gillnet is compromised if the mesh is tensioned excessively. When it was early in the season and relatively small numbers of salmon (usually fewer than 15) were harvested per net, extended families from different households associated with some Lewis Point cabins maintained additional nets, but as the run strengthened some of the secondary nets were pulled in order to keep the daily harvest within the processing ability of the camp. Daily harvests were managed very carefully to stay within the filleting ability of camp members and so that the capacity of drying racks and smokehouses would not be exceeded. The summer harvest of each Second Place respondent household (approximately 100 fish, which were mostly Chinook salmon) was carefully achieved by filling the smokehouses over a period of 3 to 5 weeks, depending on run strength, the effectiveness of the nets, and the household's projected needs for the year. The quantity of salmon harvested was largely measured by the amount of space filled by fish in the smokehouse and on the drying racks over the harvest period. Some respondent families kept close count of each salmon harvested, while others measured their harvest in relation to smokehouse capacity. In part, because Lewis Point respondents said that their families had harvested and consumed salmon annually for generations, they had developed a system of self-management that helped to prevent overharvest and waste. Respondents regularly expressed attitudes valuing efficient use and conservation of salmon, and regularly denounced wastefulness as well.

Table 4-1.—Estimated harvests of salmon in Lewis Point (location), by harvesters (any residence), 1987–2007.

Year	Number of permits		Number of individual fish harvested					Total
	Issued	Returned	Sockeye	Chinook	Chum	Pink	Coho	
1987	27	22	2,629	2,360	736	31	54	5,810
1988	19	16	1,697	1,444	665	18	141	3,965
1989	19	17	1,589	975	88	11	74	2,737
1990	17	15	1,775	1,980	331	0	85	4,171
1991	30	27	1,357	1,729	408	0	248	3,742
1992	21	17	1,293	2,000	240	100	200	3,833
1993	24	17	1,288	4,525	418	0	18	6,249
1994	19	12	815	2,259	162	0	35	3,271
1995	21	21	1,432	1,860	208	0	109	3,609
1996	18	13	1,390	2,895	184	8	97	4,574
1997	19	19	965	2,326	83	2	89	3,465
1998	20	19	505	1,365	156	0	92	2,118
1999	21	20	941	1,632	146	4	6	2,730
2000	20	14	471	1,051	136	9	138	1,804
2001	23	23	963	1,607	146	19	256	2,991
2002	15	12	915	696	250	16	57	1,934
2003	15	14	776	1,628	293	5	71	2,774
2004	15	13	512	1,161	182	64	234	2,153
2005	18	17	980	1,309	165	6	224	2,683
2006	19	15	849	965	183	110	131	2,238
2007	17	13	608	1,437	111	73	70	2,299

Source ADF&G Division of Subsistence, Alaska Subsistence Fisheries Database (ASFDB) 2010.

Note Harvest estimates were statistically expanded to account for unreturned permits.

Table 4-2.—Estimated harvests of salmon in New Stuyahok (location), by harvesters (any residence), 1987–2007.

Year	Number of permits		Number of individual fish harvested					Total
	Issued	Returned	Sockeye	Chinook	Chum	Pink	Coho	
1987	21	15	2,335	879	960	14	17	4,205
1988	24	22	2,517	1,726	1,844	289	62	6,438
1989	21	18	3,572	793	665	0	223	5,253
1990	18	16	1,438	909	1,074	145	136	3,702
1991	16	16	961	1,186	524	115	260	3,046
1992	24	24	4,375	1,192	1,671	241	76	7,555
1993	24	21	2,622	1,906	816	8	48	5,400
1994	27	21	1,572	1,896	1,209	13	57	4,747
1995	34	31	1,075	1,509	372	1	102	3,059
1996	25	21	1,563	1,946	306	65	381	4,261
1997	29	29	839	1,334	234	48	153	2,608
1998	31	30	829	2,159	152	26	52	3,217
1999	11	11	713	1,243	102	2	95	2,155
2000	24	12	643	982	326	62	260	2,274
2001	28	26	1,649	1,942	514	95	483	4,684
2002	27	26	1,665	1,962	888	1	316	4,832
2003	35	31	3,259	2,364	1,213	230	892	7,959
2004	37	34	984	2,577	527	324	598	5,010
2005	34	28	3,124	2,028	805	179	686	6,822
2006	28	26	1,641	1,640	912	18	582	4,792
2007	38	31	2,890	1,879	697	122	549	6,138

Source ADF&G Division of Subsistence, Alaska Subsistence Fisheries Database (ASFDB) 2010.

Note Harvest estimates were statistically expanded to account for unreturned permits.

Respondent families at Lewis Point had identified harvest goals, not necessarily known or conceptualized as a hard number, or even a range of numbers for that matter, but that were guided by the amount of time spent at fish camp, the processing ability of the group, the capacity of the smokehouses and drying racks, and the length of the preservation process (primarily smoking). Minor adjustments were made to the amount of salmon harvested based on needs being met or not met in previous years, including the amount necessary for sharing; however, Lewis Point respondents reported harvesting relatively stable amounts of salmon over the years. The decline in estimated per capita salmon harvests by New Stuyahok residents (an average of 122 lb per person in the 2000s and an average of 257 lb per person in the 1980s) (Krieg et al. 2009:250–251) was assumed to involve declining harvests by those residents no longer relocating to Lewis Point for the summer, because the respondents who did continue to use the fish camp reported harvesting a relatively stable amount of salmon annually. This assumption could not be verified with permit data, however, because the data did not specify if harvests from the Lewis Point location were by camp members or by residents making short trips to Lewis Point and then returning to New Stuyahok. The short-trip pattern of use of Lewis Point will be discussed further in “Harvest Gear and Methods.”

Some Lewis Point respondent households knew the approximate number of salmon they wanted to harvest for the year while others knew the approximate amount they intended to harvest, with “amount” conceptualized in ways other than a clear number of individual fish. Because of the various ways respondent households at Lewis Point approximated harvest goals and identified that their harvest goals were met, recordkeeping for the permit program required additional effort on the part of some harvesting households. There was no reluctance to report harvests when camp respondents were asked in person to provide a harvest estimate, but the effort required to precisely quantify and record daily harvests and then to arrive at a seasonal total proved difficult for those households that did not monitor their harvests through the same conceptual approach as the permit program required. Due to this limitation, in most years, not all permits issued to Lewis Point fishers were returned (Table 4-1). Permit data were statistically expanded to account for unreturned permits, however. No Lewis Point respondents expressed any desires to withhold harvest numbers; some simply did not complete or did not return permits due to difficulties with regular harvest reporting.

Harvest quantities were also guided by species targeted, with Chinook salmon favored compared to other species. As specified in the “Harvest Timing” section, Chinook salmon arrive first but are overlapped with sockeye and chum salmon runs. In 2009, some Lewis Point respondents continued to leave their nets set even as large numbers of sockeye and chum salmon were caught, with the intent to increase their harvest of Chinook salmon. Some respondent families had 6-inch (or larger) mesh nets and were thus more effective in harvesting primarily Chinook salmon, but others did not own larger mesh nets. The families using the smaller 5-inch mesh nets faced more difficulty meeting their harvest goals of Chinook salmon without exceeding their overall harvest goal of all salmon species with the additional sockeye and chum salmon harvests.

What was identified in the late 1980s was shown to be still true at the time of this project: “King salmon ‘strips’ were considered a prized food” (Schichnes and Chythlook 1991:60). “King strips” made from Chinook salmon, described by people in New Stuyahok as a very “oily” and “fatty” fish, were highly valued for their taste and nutritional value. Little to no pink salmon (*O. gorbuscha*) were harvested at Lewis Point in 2009, as would be expected for an odd year lifecycle return, and the coho salmon (*O. kisutch*) run arrived just as camp residents returned to New Stuyahok, so harvests at Lewis Point were of primarily Chinook, sockeye, and chum salmon. Camp respondents reported that in recent years, coho salmon were often harvested with rod and reel closer to New Stuyahok after most people had left Lewis Point. Due to mixed salmon runs, the timing of harvests was fundamental to achieving harvest goals of targeted species.

Processing and Preserving Salmon Harvests

Daily setnet efforts were also guided by the intention to harvest enough salmon to keep the smokehouses relatively full throughout the stay at Lewis Point. Tending to the smokehouses required substantial and regular effort; thus, daily harvests were maximized during early fishing efforts to make the work to operate the smokehouses reasonably efficient. Generally at Lewis Point in most, but not all, cases males caught the fish and females processed the harvest. All ages except for the very young would help with some aspect of catching and processing salmon. Older males would take the lead to tend to the nets, especially driving the skiff, if one was used to pick the nets; but all ages, including younger females, would help pick the fish out of the nets. The adult females, especially the heads of the cabins, were the masters of the fish cutting tables. After the fish were caught and delivered to the cutting table by the males, the females would take charge to cut up the fish and prepare it for the drying and smoking process. The older females would do most of the technical cutting, because they were very efficient at it. Teenage and older females would help with the less technical aspects but were given more responsibility as they became more efficient at cutting up the fish. Males would help cut up some fish, and they would conduct other work around the cutting table like making sure there was enough water available, moving the gut buckets out of the way and moving fish around as needed, but it was obvious that processing was mostly the females' domain. Tending the fish on the drying racks and in the smokehouses was primarily the responsibility of the adults, mostly females, but in some cases it was also the males' responsibility. Younger males would cut and chop the wood used for smoking. The effort to utilize the smokehouse does not change with the amount of fish inside: a nearly empty smokehouse requires similar effort as a full smokehouse. The smoking preservation process required about 3 weeks to fully smoke salmon and required camp residents to regularly tend to the fire and check on the salmon strips. As such a laborious process, respondents reported that they did not want to prepare and tend to the smokehouse for only a small number of fish in the early season. Much of the early season harvest was eaten fresh, and then, as daily harvests reached more than a couple fish per day, the smoking process began. Some fresh salmon were eaten throughout respondents' stay at camp; however, the majority of the harvest was smoked. Some were canned in glass jars by one family who stayed for a shorter period of time than the rest, and some were preserved in salt. The smoked portion of the harvest was cut into thin strips, two of which were tied together with twine, soaked in a brine mix, hung on drying racks to develop a hardened top layer, then moved into a smokehouse to be smoked for approximately 3 weeks. Some of the fish were also prepared with a shorter "3-day smoked" process, but were to be then cooked further in meals, such as in soup. The smoked salmon strips achieved through the 3-week-long smoking process were fully prepared and ready to eat after the smoking was finished. The smoked strips were still generally stored in freezers when taken back to respondents' homes in New Stuyahok in order to prevent any possibility of spoilage.

Harvest Gear and Methods

Gillnets are the primary gear used to harvest salmon at Lewis Point. As stated above, males were the primary harvesters of the salmon. All ages helped pick the net; teenage and younger females also participated. If the net was picked from the beach and not a skiff, any child that was strong enough and willing to carry a fish from the net to a tote or to the cutting table would participate. In 2009, children at the camp were also observed fishing with rods and reels, but they were not successful at harvesting any salmon. Respondents said that the use of rod and reel was common closer to New Stuyahok, particularly for the harvest of coho salmon, which arrive late in the season after many Lewis Point fishers have returned to New Stuyahok. People staying at the camp in 2009 generally fished with set gillnets, but some also drifted with gillnets. Some extended family households had multiple nets set concurrently, which increased early season harvests before the runs were strong. Six-inch and 5-inch mesh sizes were common, and nets varied in length but were generally around 25 fathoms or shorter.

Project respondents reported that drift gillnets have been used on the Nushagak River for decades. Respondents said that some men made short-term trips from New Stuyahok downriver to the Lewis Point

area to fish with set gillnets in the day and drift gillnets at night. They said that these fishers took their harvests back to the village to be processed and preserved (generally by smoking, freezing fresh, or canning). They also said that using driftnets allowed the fishers to harvest targeted quantities in a shorter period of time than if they used setnets. Respondents said they have observed recent changes in the river channels that have routed salmon farther from shore, and they also reported that warmer water temperatures and lower water levels influenced how far salmon swim from the shore. Drift gillnets provided greater access to fishing locations throughout the river, they said, which proved particularly important when the effectiveness of set gillnets was compromised by the distance of fish from the shore.⁶

Respondents said that the people making the short trips to the camp were familiar with Lewis Point and had stayed there during summers in the past, but with advances in boat technology producing faster skiffs, the fishers could fish at Lewis Point for only a day or 2 and then return upriver in only a few hours. In this fashion, they said, New Stuyahok fishers could strategically harvest salmon at Lewis Point, take advantage of the benefits associated with early harvests of high-quality salmon, and then choose to live in the community rather than the fish camp for the summer.

In 2009, when people in New Stuyahok heard that people at Kanakanak Beach near Dillingham were catching 30 to 40 Chinook salmon per net per day, a rush of fishers boated down from the village to fish the peak of the run at the Lewis Point area, which they knew was about a day or 2 after a large harvest at Kanakanak Beach. When making a trip upriver to gather firewood for the smokehouses on June 18, 2009, the researchers observed 11 skiffs between Lewis Point and Black Point setting gillnets from rocky shores on the west bank, the same side of the river where Lewis Point and other settlements have been established.

THE QUIET LIFE

VanStone suggests that the people who established New Stuyahok depopulated the Mulchatna River to be closer to economic developments in Nushagak Bay, particularly the commercial fishing industry (1971:144), and that some Nushagak River families stayed on the Mulchatna and Nushagak rivers to fish for salmon while most traveled to the coast to fish, visit the trading post, and trade with coastal people for products like seal oil (1967:128). This pattern was probably increasingly true with the introduction of the commercial fishing industry, although many Nushagak River residents trapped and traded fur at the trading post on the bay in the summers prior to the establishment of the fishing industry (VanStone 1967:128). The Nushagak Bay region continues to offer opportunities that draw people from upriver, such as employment with the commercial fishery; services in Dillingham, the regional hub; and continued trading partnerships with coastal people. Of greater importance, fishing downriver near the bay allows fishers to catch “sea bright” salmon of high quality early in the season, before the fish have reached upriver locations closer to spawning grounds. For this reason, Lewis Point has remained a fundamentally important fishing location despite changes in economic opportunities in the bay region. Some respondents from New Stuyahok have chosen to fish close to the community due to the expenses associated with fishing at Lewis Point (e.g., the price of fuel); however, many continued to fish at the camp even without staying for the summer. The pattern of use of the camp has changed through time, but the establishment

6. In 2009, the Alaska Board of Fisheries considered a proposal submitted by the Nushagak Fish and Game Advisory Committee to allow drift gillnetting in the subsistence salmon fishery in the Nushagak River. The proposal had overwhelming support by Nushagak watershed residents but was rejected by the board. The board was concerned that by allowing drifting in the subsistence salmon fishery on the Nushagak River, overharvest of Chinook salmon by non-local residents of Alaska would occur. Under state law, all Alaska residents are eligible to participate in subsistence fisheries. Also, the Nushagak River Chinook salmon run in June supports sport fishing. Non-local Alaska residents attracted to the sport fishery who obtain a Bristol Bay subsistence salmon fishery permit could, perceiving the efficiency of drifting, decide to also participate in the subsistence fishery to harvest desired Chinook salmon by drifting had the proposal been adopted by the board (subsistence setnet fishing is already allowed by regulation). The board was concerned that overharvest of Chinook salmon would occur and jeopardize future salmon run returns to the Nushagak River.

and continued use of the fish camp downriver from the community of New Stuyahok has been beneficial for decades, if not centuries, for the people of New Stuyahok.

From a bustling relocation of nearly the entire community population to a relatively small camp of extended families, the pattern of use of Lewis Point has shifted. By 2009, New Stuyahok respondents often referred to summer fishing time at Lewis Point as “the quiet life,” a testament to the major shift in the number of people relocating to the camp each summer. Respondents at the camp in 2009 reported that time spent at the Lewis Point fish camp had distinct differences from time spent in the community of New Stuyahok, not just with the change of location, but also with changes in multiple facets of everyday living. It was with these changes that many respondents reported finding peace at the camp—living “the quiet life.”

Respondents at Second Place often described aspects of Lewis Point that they enjoyed in contrast to what one would find in the community of New Stuyahok. For example, four-wheelers (all-terrain vehicles [ATVs] or “Hondas,” as they were referred to locally) were commonly used as a form of transportation in New Stuyahok in 2009 and earlier years. The roads in New Stuyahok are gravel and dirt. With ATVs driving around, especially at higher speeds, the community is often subjected to substantial clouds of dust (Plate 4-1). In recent years, respondents said that only 2 ATVs have been operated at Lewis Point, mostly on the beach primarily to help move supplies to and from skiffs and to carry fish and fishing gear along the beach. The teenagers and children at the camp occasionally used ATVs to travel between First and Second places, but even with the operation of four-wheelers at Lewis Point, little or no dust was created to affect the camps, which is a very different scenario than that on the roads of New Stuyahok.



Plate 4-1.—A “Honda” kicking up dust in New Stuyahok, 2009.

Along with dust kicked up by ATVs, a more pervasive (and to many a more annoying) byproduct was reported: noise. Lewis Point was repeatedly referred to as a “quiet” place by those staying at the camp, as well as by visitors, and even by those who no longer went to the camp. The noise from ATVs on the roads of New Stuyahok carries into the homes and lives of residents, making the quiet atmosphere of Lewis Point a satisfying “escape” from the community for some. Both the adults and youths at Second Place emphasized the relief provided by Lewis Point from the noise and dust.

In a loosely structured, informal focus group, teenagers and children from Second Place and some from First Place responded to the question, “What do you like about Lewis Point?” with exclamations such as, “No dust, no Hondas, no TV, no internet!” The responses were contrasts of life at the camp to life in New Stuyahok. Lewis Point was viewed favorably relative to the community. The youths framed this response

around the concept that Lewis Point was good and likeable because it is different from New Stuyahok. This sentiment was echoed by adults at the camp, who described life at Lewis Point as time away from the permanent village, akin to vacationing. One respondent at Second Place described Lewis Point as “a place where kids can recover and heal from what’s going on in the village.” This distinction, however, applied primarily to the Second Place camp, where the majority of the research time was spent.

Children and teenagers also reported rising earlier in the morning and going to bed earlier at night, compared to their summer sleep schedules in New Stuyahok. Respondents linked this trend to the noise pollution in the village as well, because, they said, many teenagers and others ride ATVs late into the night, reportedly sometimes as late as 4:00 AM, producing noise while others are trying to sleep. Late mornings tend to accompany late nights. Many of the New Stuyahok youths were considered to be “late risers” in the summer, waking from bed in the afternoon. At Lewis Point, most people rose from bed relatively early, including the youths. In 2009, daily tasks at the camp followed a relatively structured schedule that required people to start the day in the morning.

The daily duties at Lewis Point were generally dependent on the time of day and the timing of the tides. For instance, the setnets were always checked first thing in the morning, and then periodically throughout the day in conjunction with the water level and tides. Most of the setnets at Second Place went entirely dry at low tide. People usually picked fish from the nets before they went dry in an effort to keep the salmon out of the mud on the river bottom. Sometimes, however, the nets were checked at low tide, which required the fish to be cleaned before going into the fish bins. The collection of water was also synchronized with the tide schedule. When water levels are higher on the river, the water rises past the muddy river bottom and reaches the rocky shore closer to the riverbank (cutbank) bordering Lewis Point. The high water flowing over the rocks carries less sediment, making it more usable for cleaning fish, processing tables and tools, laundry, and using in the steam bath, or, in Yup’ik, the *maqi*.

The *maqi* is an integral part of life at Lewis Point, the Alaska Native villages in Bristol Bay, and Native communities elsewhere in Alaska. During the fieldwork, preparation of the steam bath and the actual bathing at Lewis Point were regular and routine, with assigned and expected duties. Each evening the boys and young men of the camp would light the woodstove in the steam bath. After about an hour, the *maqi* would be ready and all men and boys would be called in order to steam as a group. The females would steam after the males had finished. The *maqi* was a place and activity of major significance, where multiple generations of each gender gathered and bathed collectively. It was a place where information was shared, such as daily harvests of salmon, and the topics extend far beyond the mundane. The *maqi* was a place of teaching and learning across generations and could be compared to the *kashgee*, or men’s house, where men and boys bathed, lounged, and slept in Yup’ik society prior to the introduction of Christianity. The *kashgee* was furthermore the social center of villages, an institutional structure, and was also at one time a place for ceremony and ritual, and was often used as a workshop (VanStone 1971:131). Following the introduction of Christianity, VanStone (1971) reports that the *kashgee* fell into disuse.

The *maqi* paralleled as a social center and was intimately tied to the cultural identity of many Yup’ik respondents; however, they said, steam baths were less routine in the village of New Stuyahok compared to Lewis Point. After they left Lewis Point for the summer, some of the youths cited the nightly *maqi* as what they missed most about the fish camp. During breaks in commercial fishing openings, the men of the camp would return from the bay only to bathe in the *maqi* and to quickly pick up some “king strips,” or smoked strips of Chinook salmon. The *maqi* at Lewis Point was preferred to the bathhouse available during the commercial fishing season in Dillingham and was regularly favored over showers. It was fundamental as a part of the fish camp and the subsistence way of life at Lewis Point, which did not have running water or electricity, so showers were not an option.

Kinship data were collected for Second Place at Lewis Point, where nearly every person at the camp was related at some level (Figure 4-2). Seven of the 8 household heads from the 4 cabins are siblings from 3 families. In households 2 and 3, grandparents were the predominant caretakers of their grandchildren at

fish camp. In household 2, all of the grandchildren were at camp the entire time; the parents of the 3 boys were at camp a substantial amount of time, but, due to job requirements in town, they arrived later in the season and left early to return to home. The male heads of households 3 and 4 were commercial salmon fishing captains and were at camp most of the time until the later part of June when the amount of time allowed for commercial fishing increased as the sockeye salmon run intensified. At the end of the commercial season, they returned to camp and moved their families back to New Stuyahok. Generally, the kinship diagram (Figure 4-2) indicates the close family relationships at Second Place. Observations at Second Place showed the intergenerational transmission of knowledge; the importance of the transmission of knowledge to the younger generation, as related to researchers by these families, is what ensures the continued use of Second Place as a vital fish camp into the future.

Many of the duties and tasks necessary for the operation of the camp were coordinated between households. For instance, drinking water was obtained from a spring near the village of Portage Creek, which was upriver from Lewis Point approximately the same distance as from camp to Dillingham, or more than 10 miles. If a household needed water, its members would generally collect all the empty water containers from each household to make a single trip in one boat up to Portage Creek to collect water for the entire camp. Activities were not coordinated between camps, however (i.e., First Place, Second Place, and Third Place), and very little contact was made between the camps in general except for some youths who would go from First Place to Second Place regularly and some brief visiting occurred between adults from the different camps.

The gathering of firewood and wood for smoking, or “smokewood,” was coordinated between households as well, and portions of logs were often shared between houses. Three different kinds of wood were gathered for 3 different purposes. Seasoned spruce (genus *Picea*) was used for steam baths, because it burned fast and hot. Freshly cut, or “green,” birch (genus *Betula*) was burned in small woodstoves to heat the cabins. Using wet, slow-burning wood helped to keep the fire burning longer through the night. Green “cottonwood” (poplar, genus *Populus*) was used to smoke salmon in the smokehouses, because the wet wood produced a large amount of smoke, burned slow, and did not cook the fish. This was also the choice of wood preferred for flavoring the final smoked fish strips. Much of the wood had to be gathered at particular sites along the river that required boat access.



Photo courtesy of Nick Hall Photography, 2009

Plate 4-2.—Lewis Point fish camp resident tending to the fire in the smokehouse.

Generally, a group of males would cut the wood and load it into the skiff to be taken back to camp. The owner of the skiff would drive and a group of the younger males, not necessarily from the boat owner's household, would accompany the driver on the trip to help with cutting and carrying wood. When the skiff was beached in front of the camp, nearly all available males and some of the younger females would help unload the wood. An ATV was used at times when the tide was out since the walk on the beach was substantially longer with the tide out. The logs were then carried up the steep bank by hand to the tundra where the camp sat. In a previous year, an ATV trail traversing up to the camp was cut into the bank, but in 2009 only stairs for foot traffic were cut into the dirt bank. Thus, carrying loads from skiffs was often a camp-wide effort, regardless of the ownership of the loads. Wood was often shared among households, and each house contributed to the communal steam bath firewood.



Plate 4-3.—Harvested wood being transported via skiff to Lewis Point fish camp.

Much of the sharing and cooperation of the camp centered on the core purpose of the camp: the harvest of salmon. Nevertheless, the subsidiary operations of the camp provided motivation for the continued use of the seasonal fish camp away from the permanent village. During the focus group with camp youths, not only did the children and teenagers juxtapose and contrast life at the camp with life at the village when explaining why they liked the camp, they also cited the daily tasks as the reasons they liked to go to fish camp. Packing water, a chore handled primarily by the youths, was considered a fun and enjoyable part of camp life.

As demonstrated in the kinship chart (Figure 4-2), not all members of each family went to the camp in 2009. This can be attributed in part to the voluntary nature of participation at camp. The decision to go to camp was generally left to individual choice, although some of the teenagers expressed some lack of control over the decision, with parents pushing for their company at the camp. Through this process of voluntary relocation, the people who chose to go to the camp were not deterred by the labor required of them. Some respondents who were visiting Lewis Point suggested that many New Stuyahok residents stopped going to the fish camp to avoid the hard labor demanded by life at camp without running water, electricity, or other conveniences available in New Stuyahok. Nevertheless, Lewis Point as a fishing location remained important to a larger proportion of respondents in the village of New Stuyahok than the approximately 12% staying at the camp as seasonal residents, as evidenced by the frequency by which fishers from the village would boat downriver to Lewis Point for short trips.

CASH ECONOMY

The wage-earning employment of New Stuyahok residents has changed substantially since the early 1980s when nearly every family in the community earned at least some income from the commercial salmon fishery as cannery workers, crew members on fishing boats, or permit-holding captains. Previous research (Krieg et al. 2009:197) estimated that the commercial fishery in 2005 accounted for 25.5% of the wage-earning employment of New Stuyahok residents. In contrast, research conducted for 1987–1988 showed that 43% of jobs came from employment in the commercial fishery (Schichnes and Chythlook 1991:29), and during fieldwork for this project in 2009, long-time New Stuyahok residents reported even greater participation in and earnings from the commercial fishery in the early 1980s and prior. The employment characteristics for the earned income have shifted from a relatively high involvement in the commercial fishery to a greater opportunity for participation in jobs offered through the local government, which may be related to an effort on the part of the New Stuyahok Village Council to establish a rotating schedule of jobs with the local store and various positions with the local government, such as janitorial positions. Along with earned income, it is important to recognize that dividends and money distributed through government programs constitute a substantial portion of each household's annual income. For example, in the 1987–1988 study year, one-half (50%) of the mean household income for New Stuyahok residents came from sources other than directly earned income, including Alaska Permanent Fund dividends, Alaska Native Claims Settlement Act (ANCSA) corporation dividends, Social Security payments, unemployment, and public assistance (Schichnes and Chythlook 1991:30).

In the 2005 study year, 51% of the jobs held by residents of New Stuyahok were with the local government (Krieg et al. 2009:197). New Stuyahok resident and retired commercial harvester Timothy Wonhola echoed this trend in his comments in June 2009 on the history of employment opportunities for the Nushagak River local residents:

Back then too, because there was hardly any jobs, the only jobs that they had, even for the women, when they couldn't subsist they worked in the canneries... . My mom was working in the canneries. My dad was a [commercial] fisherman. All the parents came down and stayed in Lewis Point, because there was no other jobs for them. They had no education. Only to commercial [fish]. That was called livelihood Every year a lot of people used to come and commercial [fish], a lot of families. Now they hardly do that. There's hardly any permits And now there's more jobs in the villages. A lot of people stay home now. Other jobs besides commercial [fishing].

Participation in the commercial fishing industry, and for that matter employment in any wage-producing position, is inextricably bound to subsistence fishing, hunting, and gathering activities (Wolfe et al. 1984). Employment demands time but also offers support for subsistence activities garnered through wages. As Wonhola said, declines in participation in the commercial fishery were followed by declines in relocation to the subsistence fish camps at Lewis Point. Participation in the commercial fishing industry had to be coordinated with subsistence efforts. To integrate subsistence activities and employment, Nushagak River area residents have had to make careful negotiations of time and place.

COMMERCIAL FISHING INDUSTRY

For decades, Lewis Point fishers have coordinated subsistence and commercial fishing efforts during overlapping fishing seasons; revenue earned from commercial fishing is used in part to support expenses associated with contemporary subsistence fishing (e.g., purchasing gasoline). The location of the Lewis Point fish camp offers access to the commercial salmon fishery. Commercial boats return to Lewis Point more frequently early in the commercial season when short, less-than-24-hour, commercial fishing openers are announced. As more salmon enter the Nushagak District and escapement goals are met at the Portage Creek sonar site, longer and more continuous commercial fishing openers are announced (generally the last week of June). Due to the desire not to miss the lucrative peak and main salmon run, commercial boats will then only return to Lewis Point a time or 2 when they have the opportunity to take

a break. The main run of salmon lasts from about the last week of June to the third week of July for sockeye salmon. Within that time, the lucrative peak (the time when lots of salmon are caught in a short period of time) for sockeye salmon is July 4 with a second peak occurring about a week later, after which commercial fishing tapers off about the second or third week of July.

In summer 2009, three 32-foot commercial fishing boats spent time anchored in the river at Lewis Point (2 at Second Place and 1 at First Place). At Second Place, 9 of the men and young males were actively commercial fishing for salmon in the 2009 season. Three other men staying at the camp had previously been involved in the fishery but had since retired due to health or age. All of the men and males over the age of 16 had participated in the commercial fishery at one point in their lives, and some boys as young as 5 years of age accompanied the commercial harvesters during openings, with some youths expressing more enthusiasm than others.

People from the upriver Nushagak River communities have had some level of involvement with the commercial salmon fishery since the late 19th century, but they did not widely participate as fishers and boat captains until after World War II (VanStone 1971:22). From the 1960s to the 1980s, nearly all adult males from the river communities were involved in the fishery, but beginning in the 1980s participation has declined both in fishing and permit ownership (Table 4-3).

Overall participation by Alaska residents in the Bristol Bay commercial salmon drift gillnet fishery has declined by 29%, and statewide the number of Alaska residents fishing for salmon by any method has dropped over 40% between 1988 and 2002 (Robards and Greenberg 2007:17). Numerous complex explanations for the decline in participation have been offered, mostly relating to economic forces and market conditions (a topic beyond the scope of this report); however, even without fully exploring the driving factors, the data clearly show that participation in the commercial fishery has declined overall and by New Stuyahok residents (Table 4-3). This decline has had ramifications that extend beyond the commercial fishery and general economics into the social lives of New Stuyahok residents. The decline in commercial fishing has apparently accompanied a decline in relocation to the Lewis Point seasonal subsistence fish camp each summer, with some fishers making short trips to Lewis Point and others fishing closer to the village. It is hypothesized that access to the commercial salmon fishery was historically a reason for seasonal relocation to Lewis Point and that the decline in summer relocation to the camp has been caused in part by declining participation in the commercial fishery. Further research is necessary to fully understand the forces driving this shift.

Table 4-3.—Commercial salmon fishing permits and fishing participation, 1980–2008, New Stuyahok.

Year	Number of permits	
	Fished	Held
1980	32	37
1981	34	37
1982	33	38
1983	31	36
1984	31	34
1985	33	34
1986	35	35
1987	36	41
1988	37	41
1989	40	44
1990	39	44
1991	39	43
1992	41	46
1993	36	43
1994	36	44
1995	30	43
1996	26	44
1997	30	42
1998	29	40
1999	34	41
2000	35	41
2001	27	40
2002	7	37
2003	11	31
2004	13	28
2005	15	25
2006	14	24
2007	17	24
2008	13	24

Source Alaska Commercial Fisheries Entry Commission, “Permit & Fishing Activity by Year, State, Census Area, or City Download Menu,” https://www.cfec.state.ak.us/gpbycen/mnu_down.htm (accessed January 2010).

5. SUMMARY OF STUDY FINDINGS

Findings indicate historical use of the Lewis Point location:

- According to New Stuyahok residents, Lewis Point has been used by local people of Nushagak River communities since before the beginning of the 20th century.
- The Yup'ik name for Lewis Point is *Nunaurlaq*, which translates to “poor old land.” A variation of the name (i.e., “*Nunaholook*,”) appears in Dr. French’s journals (see Appendix C).
- Lewis Point is identified by name in a 1906 report by the Department of Commerce and Labor, Bureau of Fisheries (1907) and people were living there year-round in 1913 (see Appendix C).
- New Stuyahok respondents reported that in the early 1980s, all but 3 families relocated to Lewis Point for the summer fishing season.
- Three separate fish camps referred to collectively by New Stuyahok residents as Lewis Point are named First Place, Second Place, and Third Place.

Ethnographic research methods were approved by Lewis Point residents:

- Information for this project was gathered largely through participant observation, a method in which researchers participate in the daily activities of the study group in an effort to gain a more intimate understanding of the group’s collective way of life.
 - Researchers stayed at Second Place and research efforts were focused there from June 10 to June 28, 2009, and then in New Stuyahok until July 1, 2009.
- Nine formal interviews were conducted at Lewis Point in which researchers asked for personal histories and rationales/justifications for the continued use of Lewis Point as a fish camp.
- In New Stuyahok, informal interviews were conducted with people who fished from the vicinity of New Stuyahok. People who used to go to the Lewis Point fish camp also shared information.
- A loosely structured, informal focus group was also held with the youths at the camp. It was attended by 15 participants ranging from 5- to 17 years of age, and these participants represented a large portion of the youths at the camp.

Lewis Point: a way of life for youth and elders:

- Lewis Point residents explained that, for them, their subsistence way of life could and should not be learned through books or written text: it had to be learned through experience.
- The residents of Lewis Point enjoyed finding peace at Lewis Point—living “the quiet life.”
 - Children and teenagers at Lewis Point reported rising earlier in the morning and going to bed earlier at night, compared to their summer sleep schedules in New Stuyahok. Respondents linked this trend to the noise pollution in New Stuyahok because, they said, many teenagers and others ride ATVs late into the night.
- The maqi, or steam bath, was an integral part of life at Lewis Point. The preparation of the steam bath and the actual bathing at Lewis Point were regular and routine, with assigned and expected duties. The females would steam after the males had finished. The maqi was a place and activity of major significance, where multiple generations of each gender gathered and bathed collectively. It was a place where information was shared, such as daily harvests of salmon, and the topics extend far beyond the mundane.
- Getting wood, water, and various fishing and processing activities were coordinated by participants at Second Place. Everyone, young and old, had roles in the efficient operation of the camp.

Characteristics of Lewis Point residents:

- Nearly every person at Lewis Point was related at some level.

- Young adults were noticeably absent from Second Place. No one between the ages of 20 and 39 stayed there in 2009 for more than 1 or 2 days.
- The male-to-female sex ratio at Second Place was 21 males to 11 females, or 66% male and 34% female.
 - The large percentage of males was partially attributed to their participation in the commercial salmon fishery.
 - Nine males that stayed at Second Place were actively going out on boats commercial fishing during the 2009 season.

The subsistence salmon fishing way of life:

- The use of Lewis Point as a fish camp has changed. Lewis Point continues to remain an important fishing location both as a seasonal camp, as it has been historically used, and as a prime spot to harvest salmon on short trips from the community of New Stuyahok, followed by a return trip home to process the harvest, or to fish in other locations.
 - In 2009 it was observed that many fishers boated downriver from New Stuyahok to the Lewis Point area for short fishing trips lasting about 1- to 2 days.
 - Because of the loss of permits, commercial salmon fishing provides less income for New Stuyahok residents than it once did. In the past, more people came downriver to Lewis Point and Dillingham to make money during the commercial fishing season. Presently, with more jobs in the community during the summer, people tend to stay in New Stuyahok.
- Subsistence salmon fishing focusing on Chinook salmon at Lewis Point generally begins in late May or early June. In 2009, residents of New Stuyahok moved to Lewis Point around June 6 after a traditional council meeting.
- When high numbers of Chinook salmon were caught in subsistence nets downstream from Lewis Point at Kanakanak Beach, everyone upriver knew that those fish would hit nets at Lewis Point in 1 or 2 days. Those subsistence fishers not at Lewis Point would plan their trips downriver to Lewis Point when they received this information.
- One of the key advantages of fishing at Lewis Point was the ability to harvest salmon earlier than was possible when fishing upriver near New Stuyahok.
 - Earlier harvests at Lewis Point provided better quality Chinook salmon meat with more oil and the likelihood of higher concentrations of Chinook salmon harvested. Cool, dry weather and no bugs to infest the fish are advantages of earlier salmon processing.
- Chinook salmon smoked and dried strips are the most prized and tasty subsistence product produced at Lewis Point and in the region.
 - The optimum harvest number for Chinook salmon to fill a smokehouse at Lewis Point was considered to be about 100 fish.
 - Freshly cut “cottonwood” was preferred for smoking salmon at Lewis Point.
 - To attain the optimum amount of smoked and dried salmon, with different batches of fish being caught and prepared, the process required about 3 weeks of tending the smokehouse.
 - Other salmon processing and preparation observed at Lewis included: “3-day smoked” salmon, then usually canned and salted salmon in buckets.

This project design is recommended for areas that have not undergone in-depth research in recent years, where exploratory research can define the parameters of resource use, and additionally, outreach opportunities can forge relationships and establish rapport between local communities and the management agency.

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APPENDICES

Appendix A. Project Information Sheet

Division of Subsistence
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Photo of Nick Gumlickpuk at Lewis Point taken in July 1982 by John Wright, Division of Subsistence, ADF&G

Division of



Subsistence

TRENDS IN THE SUBSISTENCE SALMON FISHERY OF NEW STUYAHOK

PROJECT DATES

June 2009

WHO IS DOING THIS PROJECT?

Division of Subsistence, Alaska Department of Fish & Game

WHY DO THIS PROJECT?

This project will identify and describe the importance of subsistence salmon fishing to New Stuyahok. Changes in subsistence salmon fishing not recorded by the yearly Subsistence Salmon Permit System (a system which mainly focuses on harvest numbers and locations) will be recorded. For example:

1. Recent research indicates that even though people in New Stuyahok continue to use a significant amount of subsistence salmon, the amount per person identified by household surveys decreased from an average of 257 pounds in the 1980s to an average of 118 pounds in 2000-2006.
2. Although Lewis Point is still a very important subsistence salmon fishing location for New Stuyahok, it appears that not as many households go there to subsistence fish as in the past (~1980s).
3. Staying in the village in the summer and subsistence fishing closer to New Stuyahok appears to be more common today than it was in the past.
4. The preservation method of drying and smoking salmon might be done less today than it was in the past due to an increase in the use of freezers.

Understanding **why** changes have occurred is important to help protect subsistence. This project focuses on salmon fishing as part of the subsistence way of life. This is not a biological study of salmon or salmon runs.

WHAT ARE WE ASKING?

During this project, New Stuyahok residents will be asked:

1. Have these changes occurred?
2. What drives the changes? (e.g. economy—gas prices; demography—fewer elders; preference for store-bought food, sport fishing; ecology—weather, water levels, run timing of salmon, abundance of salmon?)
3. Do people think these changes will continue? If so, what are the implications?

METHODS

Researchers will:

- Review relevant literature
- Participate in fishing activities at Lewis Point and other New Stuyahok salmon fishing locations
- Conduct key respondent interviews
- Map current and past locations of fish camps used by New Stuyahok residents
- Prepare a draft final report with study findings
- Hold a community meeting for review of findings in New Stuyahok
- Release the final report to New Stuyahok and the general public
- Produce the community's choice of project media (e.g. information poster, photo album, etc.)

HOW DOES THIS BENEFIT NEW STUYAHOK

The project intends to:

- Demonstrate the importance of subsistence for local residents to non-local residents
- Aid in management decisions and give the community a voice in those decisions
- Document use of the land and water by residents in your community supporting your right to subsistence fish under State and Federal law
- Create material that can be used in school or for other community use

MAIN CONTACT INFORMATION

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Appendix B. Literature Reviewed

Readings for the Field

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Appendix C. Dr. French's Diary Entries

Dr. Linus Hiram French is a valuable source of information concerning Lewis Point because of the daily diary that he kept from Wednesday, Sept. 3, 1913, until Thursday, June 15, 1916, while at Kanakanak Hospital. The hospital, started in the buildings formerly occupied by the Moravian Mission School named Carmel, was relocated to Kanakanak in 1913. Carmel was located on the opposite side of the Nushagak River approximately 5 miles east-southeast of Kanakanak. Digitally scanned copies of the diary pages were made available to Bristol Bay historian Tim Troll by the descendants of Dr. French. Mr. Troll provided the scanned copies for the production of this report. The daily entries are short: about a paragraph long, each page is about 4 x 8 inches and includes printed lines and dates for 3 days with 8 lines for each day. Almost all of the entries stay within those parameters. The initial entries, starting Sept. 3, 1913, refer to activities that appear to indicate moving into a building or getting the interior of a building ready for occupancy. Apparently this is when Dr. French was getting the hospital set up in the school building at Kanakanak.

In addition to his duties as doctor, school and reindeer commissioner, and census enumerator, Dr. French was the judge for courts in Dillingham and Naknek. He recounts some of his judicial decisions in his diaries. Due to these responsibilities, he traveled the area extensively—especially in winter by sled and he used reindeer or dogs to pull the sled, depending on the requirements of the trip (Tim Troll, personal communication). During these travels, he visited Lewis Point, which he refers to in his journals as “Nunaholook.” Although this spelling is slightly different than “Nu-nah-ga-luk,” which Fassett recorded, it still equates to Nunaurluq, the modern standard Yup’ik orthography spelling. Additionally the landmarks Dr. French describes in his travels indicate that without a doubt “Nunaholook” is what is referred to today as Lewis Point.

His entries on Jan. 27, 1914, and Jan. 12, 1916, are especially significant. The 1914 entry states that he stopped at “Josuas House” at Nunaholook and bought smelt. This documents that during the winter of 1913–1914, someone named Josua was living in a house at Lewis Point and presumably may have lived there year-round. Additionally, the fact that he bought smelt from this house is significant because it denotes subsistence activity at that location. Even today, the Lewis Point area located on the Nushagak River between Third Place and Fourth Place is known as a good ice fishing location to catch smelt. The 1916 entry states that he and 4 travelling companions stopped at Nunahoolook (the only time there is any variation in his spelling of Nunaholook) where Natives were present and presumably living there again through the winter of 1915–1916. They stayed the night with French sleeping in the fish cache, 3 others slept in the “hut” and one slept in the sled. At the very least a “hut” can be defined as a dwelling and a fish cache would suggest a long-term occupation very likely through the winter and therefore year-round. The indication that Native people were living at Lewis Point in 1916 is supported by Orth’s U.S. Bureau of Fisheries reference, which states that in 1924 Lewis Point was an “Eskimo settlement or camp” (Orth 1971rep.).

Following are the selected diary entries that refer to Nunaholook/Lewis Point and travels in the area, which document place names and the names of local residents in 1913–1916. When “Nunaholook,” “Nunahoolook,” and “Louis Point,” which all refer to the location of Lewis Point, occur they are indicated in bold font. Spelling, punctuation, capitalization, and anything written in the diary entries were transcribed in their original form as accurately as possible. Four series of consecutive chronological dates from the diaries are transcribed with the first date of each series underlined.

December 16, 1913 Tuesday

Min temp 6

Left home 11 AM and stopped at Choguiung school for lunch. Reach Wood river and act [on account of] flood tide open water and ice breaking up, ran along beach to Black Bluff [possibly what today is known as Hanson's Point] and camped.

December 17, 1913 Wednesday

Crossed Wood River near our camp about 9 A. M. at daylight. Ice bad on sides of river. Ice caved in with me as I was going ahead with ice spear, and I went in and got wet, had to change socks and boots, very cold. Rough going. camped early near **Nunaholook**.

December 18, 1913 Thursday

Fine weather rather warm probably about 15 above zero. Made Portage Creek camping place.

December 19, 1913 Friday

Thawing and strong easterly wind. About 32 degrees. Started from Portage Creek and made the salting station at Squaw Creek at 4 P. M. very dark. Camped in building and cooked supper on range. Blowing hard to night N.W.

December 20, 1913 Saturday

About 38 all day. Very wet feet. Crossed [Kvichak] river 3 miles above Lock's cabin where we had lunch. Stopped at Gartlemans 5 minutes. Made Kogiung School about 9 P.M.

December 21, 1913 Sunday

Around 28 all day until evening warmer misty. Gave Swanson anaesthetic (sic) and opened and drained wound – charge \$100.00 Spent evening at Rudolphs.

December 22, 1913 Monday

About 30 to-day Got started from schoolhouse about 9 AM and made Squaw Creek Saltery where we camped. Left Fannie at Hermans to be taken to Barton. Made visit at Hallerville and crossed from there to Locks House.

December 23, 1913 Tuesday

Got start 7.30 and made Portage Creek camping place a 6 P.M. very dark. Hard days travel, no snow and much walking and running.

December 24, 1913 Wednesday

Much colder to-day. Left Portage Creek Camp about 8 P[A]. M. Had lunch at **Nunaholook** and arrived at bank of Wood River after dark but continued up and camped across from island late, on flat

December 25, 1913 Thursday

Crossed Wood River at Red Bluff and took Igearok trail to Chogiung arriving about 10.30 A.M. and had breakfast at Mrs Call's. Saw Emil (sic) Anderson, Andrew Hogbergs daughter Marie Otto Larson then brought Mrs. Call to Sorbeys where we took supper.

December 26, 1913 Friday

Larson Polson and Schroeder came down for goods left with me for safe keeping in fall. Made a visit to Hogbergs.

December 27, 1913 Saturday

Cox's arrived with [rein]deer outfit with Pete and Pekluska. Mrs Call came down. Marie left about 10 P. M.

December 28, 1913 Sunday

Mrs. Call and Coxes went to Chogiung with my team in charge of L. Hansen.

January 22, 1914 Thursday

About 20 degrees

Fine weather to day

L. Hanson came down also L. Eglund.

January 23, 1914 Friday

About 20 degrees. Fine weather. Nicholson family (except Emma) came over bringing child who was bitten by dogs. Dagiak and Andrew Johnson and Was. Miller also came. Chris and Ivan went to Snag Point.

Simeon Dutalik 60 came

Wasalie Kovie came

January 24, 1914 Saturday

[nothing recorded]

January 25, 1914 Sunday

Left home 8.30 with 11 dogs and Cris also Nicholson family with 16 dogs. Fine travelling and made Berglunds home at 2.30

Mr. and Mrs. Berglund very nervous soon was all right,

Wasalie Kovie left PM

January 26, 1914 Monday

Spent day to 3 PM at Nushagak visiting sick in village. Found natives very dirt and lousy. Went to Kanulik in afternoon and stopped at Links.

Played phonograph in evening

January 27, 1914 Tuesday

Left Links 8 a.m. snowing and blustery, very bad weather. Stopped at Josuas House, **Nunaholook** and bought smelt. Also stopped at Teddy's. Arrived at Chogiung after dark and stopped at school for the night.

January 28, 1914 Wednesday

Took breakfast with Mrs. Call and then came home stopping at Sorbys and Pete Nelsons. Snow deep and drifted.

January 29, 1914 Thursday

Mrs. Larson discharged. Titiana (Golia) entered. McKenna and Cris went to Chogiung. Yukaluk came down Andrew all right.

January 30, 1914 Friday

Simeon Dotalik discharged and he walked home.

January 31, 1914 Saturday

Gregory of Ekuk discharged.

January 30, 1915 Saturday

Left home at 1 P.M. Stopped at Klondikes for lunch. Made timber patch across Wood River.

Cold and Clear

January 31, 1915 Sunday

Made a late start and travelled only 3 hours. Johnnie the Jap passed us on his way to Nushagak. Camped not far from **Louis Point** in small patch of timber. Quite cold, clear. Fox barked at [rein]deer in evening.

February 1, 1915 Monday

Made to far edge of timber at Portage Creek after dark.

February 2, 1915 Tuesday

Left camp at edge of timber at Portage Creek. Tundra very rough. Made last patch of timber. Strained my Rtendo Achilles

February 3, 1915 Wednesday

Left camp at last Patch of wood early, met L. Hansen at Squaw Creek at 1 P.M. when we lunched. Attempted to cross Kvichak at Kogiung but failed because of open water and darkness. Camped up on bluff in timber. fine moss

February 4, 1915 Thursday

Crossed river at Cape Horn ice very rough. Arrived at Kogiung School at 3 P.M. Willie has left for Illiamna (sic) to bring 3 govt. [rein]deer that had returned to Iliamna.

February 5, 1915 Friday

Went down to Libby's Cannery with Russian John's team, stopped at Coffee Creek and hitched in four of Ole's dogs. Arrived at 4 P.M. at gino and Leanders house.

February 6, 1915 Saturday

Bucherts arrive before bkfst. All left 9 A.M. Lunched at Cavans's. Arrived at N.N. [Naknek] about 3 P.M. with Leander.

January 11, 1916 Tuesday

Left home about noon Stopped at Larson's for provisions. Stopped at Herman Schroeder's for lunch. Fog came up while on Wood River. and we could not see patch of woods. Found some moss and camped in sleds in open.

January 12, 1916 Wednesday

Today did not travel long. Stopped at **Nunahoolook**, natives drunk. I slept in fish cache. Brown Cris and Johnie in hut. Baker in sled outside.

January 13, 1916 Thursday

Left **Nunahoolook** at 9 A.M. and made Portage Creek 4 P.M. Had lunch at foot of short portage.

January 14, 1916 Friday

Got up at 4 and left camp 7.30. Made Squaw Creek Saltery and stopped at Englund and Berglund's. All slept in Pete Nelsons house Brown had hard time to-day.

January 15, 1916 Saturday

Left Saltery at 10 A.M. and arr. At Kogiung School 12 N [noon]. Visited around village and spent evening at Bucherts.

January 16, 1916 Sunday

Got up early for a good start but was delayed on account of [rein]deer wanderings away. Left 11 a.m. Stopped at Coffee Creek for Lunch Bakers sled broke down in Graveyard Creek. Stopped at Slidigers. Arrived at Cavana's late. Brown went to Ole Mack's for a bed.

January 17, 1916 Monday

Went to Monson's with Mr and Mrs Cav. And Mrs Call Mrs Paulson Mrs Fursman Mrs Nelson were there. Crossed river t N.N. [Naknek] Spent night at Fursmans.

January 18, 1916 Tuesday

Made late start 10.40 from jail fair going camped on beach.

January 19, 1916 Wednesday

Very cold wind to-day, with drifting snow. Saw Grant at about the middle of the big flat, about 8 or 9 miles above his cabin. Stopped at his cabin. Cold in evening. Good deer food and decided to stay over a day to feed.

January 20, 1916 Thursday

Colder to day with strong wind. Stayed all day with Grant.

January 21, 1916 Friday

Made Egegak to-day – deer tired out. Arranged to go to Ugashik with a dog team.

January 22, 1916 Saturday

Left Egegak with Miska's team of 5 dogs. Very Cold. Picked up four more dogs. Reached Batloon Creek and camped in a native tent.

January 23, 1916 Sunday

Started two hours before daylight and arrived at Pilot Station at Sundown. 24 below zero. Wilson not home. Upto deer camp to attend boy shot in leg with shotgun. Slept at Lowe's Baker at Schoolhouse.

January 24, 1916 Monday

Visited Mrs Brown. Wilson returned, left injured boy at Ugashik. Went to Ugashik and brought boy back to school-house and operated on thigh. Finished and put boy to bed. 4 a.m. Treated Nikkie's bro – frozen face

January 25, 1916 Tuesday

Turned in at 5 A.M. Miska went back to Egegak. got up at 11 a.m. Treated Cryll Savogen – frozen face.

January 26, 1916 Wednesday

Called on Mr Brown and got a bag of down. Dressed Nikkie's leg. Visited school in afternoon. Played cards at Wilsons in evening. Turning warmer to-day

January 27, 1916 Thursday

Called on Natives in village, and heard complaints. Saw wife of Trefon. Had dinner with Mr Lowe Alexie present. Spent evening at Alexie's house and heard Victrola. Warm to day 32 degree + Yako came with frozen feet from Cold Bay [not the lower Alaska Peninsula Cold Bay].