

Technical Paper No. 437

**Customary Trade and Barter as Part of a Continuum
of Exchange Practices in 3 Upper Yukon River Region
Communities: Fort Yukon, Manley Hot Springs, and
Venetie**

by

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Division of Subsistence



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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

<i>all atomic symbols</i>	
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

Alaska Administrative Code	AAC
all commonly-accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly-accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
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. states	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

<i>all standard mathematical signs, symbols and abbreviations</i>	
alternate hypothesis	H _A
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)	log ₂ , etc.
minute (angular)	'
not significant	NS
null hypothesis	H ₀
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance:	
population	Var
sample	var

TECHNICAL PAPER NO. 437

**CUSTOMARY TRADE AND BARTER AS PART OF A CONTINUUM
OF EXCHANGE PRACTICES IN 3 UPPER YUKON RIVER REGION
COMMUNITIES: FORT YUKON, MANLEY HOT SPRINGS, AND VENETIE**

by

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ABSTRACT

The salmon fishery on the Yukon River is one of the largest subsistence fisheries in the state, and salmon fishing is a central component of the socio-economic profile of most households and communities in the Yukon River region. Throughout history, residents of the Yukon River have engaged in the exchange of salmon and other subsistence resources for small amounts of cash. Customary trade, the legal term for this practice, plays a long-term and important role in subsistence economies; indeed it is recognized as a customary and traditional subsistence practice in Alaska state statute (AS 16.05.940(34)). However, Yukon River salmon, especially Chinook salmon, have experienced a decline in abundance since 2000, resulting in restrictions to subsistence and commercial fishing. During this time of restriction, Yukon River residents have remained divided over the issue of customary trade, variably characterizing it as either a legitimate subsistence activity or a problematic moral choice to sell a subsistence resource when Chinook salmon numbers remain low. Although rich, qualitative accounts of customary trade along the middle and lower Yukon River document this important historical and contemporary practice, there has been little research on the topic along the upper Yukon River. This report examines customary trade in the upper Yukon River communities of Manley Hot Springs, Fort Yukon, and Venetie and finds that customary trade can only be understood in relation to the equally complex processes of sharing and barter as part of a continuum of exchange that serves to distribute subsistence resources within and between communities.

Key words: customary trade, barter, exchange, Yukon River, salmon, Fort Yukon, Manley Hot Springs, Venetie

1. INTRODUCTION

Caroline L. Brown and Catherine F. Moncrieff

The salmon fishery on the Yukon River is one of the largest subsistence fisheries in the state, and salmon fishing is a central component of the socio-economic profile of most households and communities in the Yukon River region. Salmon are the foundation of most mainstem Yukon River communities' annual subsistence harvest, accounting for roughly 30–70% of the total harvest (Brown, Brenner, et al. 2015; Brown et al. 2016; Fall et al. 2012; Ikuta et al. 2014).

Salmon is central to Yukon River commercial fisheries located primarily in the lower river closer to the coast. There, fishermen often engage in both subsistence and commercial harvesting of the same species, and profits from the commercial sales are often reinvested in subsistence activities by providing cash to buy equipment and supplies used for subsistence harvesting. Along the upper Yukon River, where there is not a robust commercial fishery, customary trade may provide some means of financially supporting fishing or other subsistence efforts, while barter exchanges may provide the opportunity to procure necessary supplies.¹ Recent research on customary trade (Fienup-Riordan 1986; Krieg et al. 2007; Magdanz et al. 2007; Moncrieff 2007) suggests that customary trade plays a long-term and important role in subsistence economies; indeed it is recognized as a customary and traditional subsistence practice in Alaska state statute (AS 16.05.940(34)).

Details about how customary trade is practiced and its role in the larger subsistence way of life are not well documented. Rich, qualitative accounts of customary trade in the lower and middle areas of the Yukon River document important historical and contemporary practices (Moncrieff 2007), but only one project has attempted even a limited effort to quantify customary trade practices along the Yukon River (Brown, Godduhn, et al. 2015). Although customary trade remains a contentious issue, public debates oversimplify the practice, are nearly devoid of any actual qualitative or quantitative data, and usually do not acknowledge its important history. Salmon are still at the center of most Yukon River community economies, yet changing technology, regulations, and other social structures have affected changes in the subsistence salmon fishery. To what extent do individuals or households participate in customary trade? What motivates participation? Does customary trade differ household to household, community to community, or region to region? How is customary trade related to other exchange practices such as sharing or barter? How do the legal definitions of customary trade and barter compare to how these resource exchanges are understood locally? And does the decline in Chinook salmon abundance affect customary trade or other exchange practices?

This report examines these questions with regard to the upper Yukon River area. It presents information from individuals and households that participate in sharing, customary trade, and barter, both historically and today. These data show that customary trade has variable meanings and values associated with it, even within the same community, and that customary trade can only be understood in relation to the equally complex practices of sharing and barter as part of a continuum of exchange that serves to distribute subsistence resources within and between communities. This report examines the historical and contemporary customary trade of salmon in the upper Yukon and Tanana rivers. The research took place in 3 communities: Fort Yukon, Manley Hot Springs, and Venetie. Declining Chinook salmon abundance has required Yukon River fishers to reevaluate the ways in which they use salmon, has shifted strategies for maximizing harvests (Brown, Godduhn, et al. 2015), and has increased debate over various priority uses of salmon, such as customary trade. This research greatly increases our understanding of the historical and contemporary role of customary trade in the customary and traditional patterns of salmon use along the upper Yukon River.

1. In AS 16.05.940(2), “barter” is defined as the “exchange or trade of fish or game, or their parts, taken for subsistence uses for other fish or game or their parts; or for other food or nonedible items other than money if the exchange is of a limited and noncommercial nature;” “customary trade means the noncommercial exchange, for minimal amounts of cash, as restricted by the appropriate board, of fish or game resources” (AS 16.05.940(8)).

RESOURCE EXCHANGE IN ALASKA

Along the Yukon River and in much of rural Alaska, salmon and other subsistence resources are distributed locally and widely through sharing, barter, and customary trade (Krieg et al. 2007; Langdon and Worl 1981; Magdanz et al. 2007; Moncrieff 2007). Underlying these exchanges is a moral obligation to share one's material wealth or provide for others in need. This distribution system provides subsistence resources to those who are unable to participate in the harvest themselves. Barter and trade also supply the harvesters with other resources that support a subsistence way of life (Wheeler 1998). Not all subsistence users or households participate equally in the harvest of all resources, yet most households in subsistence-based communities use a wide variety of subsistence resources. Distribution networks provide the means for households to access resources they do not harvest and are hallmarks of subsistence economies (Wolfe and Ellanna 1983).

Resource exchange in Alaska has been documented prior to contact with Europeans in the 18th century. Alaska Native societies traded to obtain subsistence resources not available locally (Schroeder et al. 1987:221). Trade over greater distances, flowing from the Chukchi in Siberia to the Yup'ik in Alaska through King Island and Stuart Island, began in the latter half of the 18th century after Russian movement into eastern Siberia (Schroeder et al. 1987:222). This trade was international, with Alaska furs destined for the Chinese or European market and Siberian reindeer skin, iron, tobacco, tea, and some manufactured items headed for Alaska villages. Trading fairs took place across Alaska including along the Yukon River near the contemporary community of Tanana at Noochulohoyet Point at the confluence of Tanana and Yukon rivers (Clark 1974). Following contact with westerners, trade intensified and some items became more valuable, especially fur (Langdon and Worl 1981:81). For example, furs were often the focus of trade, and were sometimes exchanged for cash and sometimes for other goods.

In the past and continuing today, trade forged both economic and social relationships through which resources were exchanged over time and space (Langdon and Worl 1981:81). As Burch (1979:128–129, 2006) described for northern Alaska, partner relationships existed to facilitate the exchange of goods, but also fulfilled other social functions. Trading events usually took place regularly at specific times of the year and the items exchanged were usually not equally available to each partner; as a result, trading partnerships rarely existed within the same immediate area. These trading relationships contributed to an extensive inter-regional trade network in addition to regular meetings at summer trade fairs. The advent of protracted Euroamerican contact led to a transitional period during which exchange for accumulation of food reserves shifted to trade as an important marker of wealth (Burch Jr. 1975, 1979). Relatives frequently traveled with traders, establishing their own contacts and increasing the number of partnership or trade relationships.

In Gwich'in and Koyukon Athabascan societies, the exchange of resources within and between communities was a customary practice that occurred long before European contact (Clark 1974:91). Neets'aiti Gwich'in established trade relationships with North Slope Iñupiaq, traveling between the coast and trading fairs in more centralized locations (Dall 1897; Edington and Edington 1930; McKennan 1965; Murray 1910). Gwich'in Athabascan bands also traded with Lower Tanana Athabascans, who brought coastal Dena'ina goods to the Interior and redistributed them (McKennan 1965; Osgood 1937).

Among contemporary residents of the Yukon River communities, an obligation still exists to trade, barter or share resources, especially those that are available locally, so that others may benefit from any surplus (Moncrieff 2007:33). In the 1950s, Yukon River fishers from the middle river communities of Holy Cross, Kaltag, Nulato, and Koyukuk sold dried chum salmon to traders who floated the river on barges. The dried salmon was packaged in bundles of 50 fish and was used as dog food to feed the extensive teams maintained by residents for trapping, subsistence, and mail delivery during that time (Moncrieff 2007:18). Upper river residents harvested large quantities of fish and sold the dried fish to the trading posts in the Tanana–Yukon rivers region. This dried fish was a major source of food for the dog teams that supported the burgeoning trapping and wood-cutting industries in the area (Betts 1997:87).

REGIONAL BACKGROUND

For the purposes of this report, the upper Yukon River region is geographically described as the confluence of the Tanana and Yukon rivers upriver to the border of Alaska with Canada, including the Yukon Flats north of the White Mountains. The region is composed of 8 primarily Gwich'in Athabascan communities (Stevens Village, Beaver, Venetie, Arctic Village, Fort Yukon, Chalkyitsik, Birch Creek, and Circle), the historic mining town of Central, the Han Athabascan and settler community of Eagle at the border with Canada, and the lower Tanana River community of Manley Hot Springs, where residents have historically traveled to the Yukon River for summer fishing. All are located in the subarctic boreal forest and riverine landscape of Interior Alaska, and residents access a wide variety of wild resources for subsistence including moose, caribou, migratory birds, salmon and nonsalmon fishes, small game, and plants. Because of the braided nature of the mainstem Yukon River in this region, most fishers use small fish wheels in the mainstem or they set gillnets in eddies to harvest salmon and other fish. Tributaries in this area such as the Chandalar and Tanana rivers do not support abundant Chinook salmon stocks, so many fishers from these communities travel to the mainstem Yukon River to harvest Chinook salmon.

The indigenous population of the upper Yukon River area experienced rapid culture change beginning in the 1800s with Russian contact through the fur trade (Slobodin 1981). The combination of introduced epidemics, missionization, and increased economic activity caused changes to Gwich'in social organization as many families began to work traplines in isolation from one another. However, older customs of sharing food and other resources remained vital to Gwich'in identity (Koskey and Mull 2011). Prior to western contact, Gwich'in people were heavily involved in trade, even acting as middlemen in regional trade (Slobodin 1981). Indeed, trade played a role in structuring social relationships of sharing, where hunting success, resulting from a combination of luck and skill, necessitated an ethic of sharing with those less successful. Sharing and trading resources still has important social and cultural value for Gwich'in people, where individuals and families with less are the responsibility of the community and "deprivation is seen as a communal shortcoming" (Koskey and Mull 2011).

Prior to the 1980s, most Yukon families maintained the traditional practices of seasonal movement in pursuit of subsistence resources to travel to summer fish camps where they would harvest large quantities of the abundant salmon species in summer and early fall. Fish camps were more than places to procure food for the long winter: they were also important spaces of sociocultural connections to family, the resource, and the land. With technological advances in gear and transportation, fish camp residence changed. The introduction of snowmachines into rural Alaska in the 1960s led to a decrease in the number of dogs kept for transportation and subsistence activities, as well as the need for large quantities of fish to feed them. Over time, advances in boat motor technology, fewer dogs to feed, and changing regulation decreased the amount of time fishers spent getting to their fishing spots and enabled many to fish from their home communities rather than moving to fish camps for the summer (Brown, Godduhn, et al. 2015). Still, a robust subsistence salmon fishery remained central to the cultures, diets, and economies of the Yukon River's rural communities.

Until 1999, subsistence harvests of salmon were largely unrestricted in the upper Yukon River region, including subdistricts Y5 and Y6 (Brown, Godduhn, et al. 2015). After severe population declines in all salmon species in 2000, Chinook salmon stocks slowly but unevenly began to rebuild until about 2009, when Yukon River Chinook salmon stocks again experienced severely low returns. Commercial opportunities for Chinook salmon were eliminated in 2008, and the subsistence fishery has been restricted since 2009 (except for 2010 when weather conditions largely reduced fishing effort). In 2014, the year this research commenced, Y5 and Y6 households harvested an estimated 572 Chinook salmon compared to a pre-2000 average of approximately 16,561 Chinook salmon (Jallen et al. 2017). This decline in Chinook salmon harvests is mirrored throughout the Yukon River drainage but has particular implications for the upper river districts. Although the Yukon River supports runs of Chinook, sockeye, pink, and coho salmon, in addition to 2 seasonal migrations of chum salmon (summer and fall chum salmon), only Chinook, fall chum, and coho salmon reach the upper river in any appreciable numbers (Brown, Godduhn, et al. 2015). As a result, harvest limitations on one of those species will significantly affect harvests by upper river fishers.

REGULATORY CONTEXT AND PROJECT BACKGROUND

Customary trade is recognized as a legitimate subsistence use in federal law, through Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA), which protects subsistence uses for rural Alaskans. ANILCA also allows for barter and sharing of fish and wildlife. State law, too, recognizes customary trade as a subsistence use (AS 16.940(33)). However, under state regulations, the exchange of subsistence-caught fish for cash is illegal unless the Alaska Board Fisheries allows it for specific stocks (5 AAC 16.01.010(d)). Presently there are only 2 exceptions: herring roe on kelp in Southeast Alaska (5 AAC 01.717) and subsistence-harvested finfish in Norton Sound-Port Clarence area (5AAC 01.188). In both state and federal law,² customary trade of fish is defined as the exchange of subsistence-caught fish for cash in a “limited” and “noncommercial” nature. Barter is the exchange of subsistence resources for goods or services other than cash, such as gasoline, groceries, or equipment. Sharing can be a more complicated exchange, but generally means giving salmon or other goods away with no obligation or expectation of reciprocation. Although simple sharing does not require a return “gift” or imply a bi-directional exchange as barter and customary trade do, for the purposes of this analysis, we include it as part of a continuum of exchange that structures how resources are distributed between individuals and within and between households and communities. In contrast to the legal definitions, local definitions of sharing, barter, and customary trade may be more fluid in practice based on local social norms, cultural or historical values, or locally defined needs. In any particular community setting, sharing, bartering, or selling a resource may result from or incur a sense of obligation or reciprocity by the participants. At times, the motivation for selling or trading may result more from a set of social rules or priorities than from a desire for economic gain.

Understanding customary trade practices is complicated by these competing definitions as well as by differing state and federal regulatory structures. What both state and federal regulations define as “customary trade” (the exchange of subsistence goods for cash), many Alaskans call “selling fish.” What the regulations define as “barter” (the exchange of subsistence goods for other items but not cash), many Alaskans call “trade” or even “customary trade.” Further, the federal and state boards have taken different approaches to customary trade. At their January 2003 meeting, the Federal Subsistence Board (FSB) adopted new regulations clarifying customary trade practices of subsistence-caught fish, their parts, and their eggs. The regulatory language adopted by the FSB established regulations that provide for and protect traditional practices of customary trade of subsistence-harvested fish while minimizing the potential for commercialization of subsistence fish. Specifically, the 2003 federal rule limited the customary and traditional sale of salmon for limited amounts of cash by rural residents only to other rural residents or to others as long as those fish are used for personal or family consumption. Additionally, a rural resident may only sell fish harvested from waters under federal jurisdiction.³ However, customary trade and barter often occur far away from the harvest area and long after the harvest is conducted. A single exchange could involve fish harvested under both state and federal jurisdiction. Researchers, managers, and enforcement agencies often express difficulty determining whether trade products originated in federal or state jurisdictions.

Low numbers of returning Chinook salmon to the Yukon River since 2000 have raised concerns about the practice of customary trade. The decline in the number of returning Chinook salmon beginning in 2000 has required more conservative management by federal and state agencies in the form of subsistence restrictions or closures, the introduction of nonlethal harvest gear, and the reduction or elimination of a directed Chinook salmon commercial fishery. As restrictions have increased and harvests have decreased, there has been growing attention to the allocation and uses of Chinook salmon, especially customary trade. During this time of restriction, Yukon River residents have remained divided over the issue of customary trade. Some characterize the practice as a legitimate subsistence activity, and others see it as a problematic moral choice to sell a subsistence resource when Chinook salmon numbers remain low and the Chinook salmon commercial fishery in the lower river has been eliminated. In 2008, the Yukon River Panel, an international body established under the Yukon River Salmon Agreement, requested clarification from the Federal Subsistence Board regarding the monitoring of customary trade practices involving subsistence-

2. 5 AAC 99.021 and 50 CFR § 100.4

3. 50 CFR 100.27(c) and 36 CFR 242.27(c)

harvested salmon (Pacific Salmon Commission 2014rev). The Yukon River Panel was anticipating low salmon numbers in 2009 and specifically wanted to know whether federal regulations permitted sales of processed subsistence-caught salmon (USFWS 2013). Around the same time, the Fairbanks Fish and Game Advisory Committee and the Eastern Interior Alaska Subsistence Regional Advisory Council also expressed concern over the customary trade of Chinook salmon in light of declining runs and requested a suspension of customary trade of Chinook salmon between rural residents and others (USFWS 2013:162–164). Due to concerns over abuses in the practice, the U.S. Fish and Wildlife Service (USFWS) investigated possible illegal activity focusing on the sale of processed or value-added salmon from the Yukon River. Federal rules allow for customary trade of unprocessed fish only. Examples of alleged abuses include selling salmon strips in large quantities and outside of traditional channels.

These and other concerns led to the formation of a Tri-Regional Advisory Council subcommittee tasked with exploring potential customary trade regulatory changes and resulted in several proposals before the Federal Subsistence Board in January of 2013 (USFWS 2013:142–156). However, the Yukon River Drainage Fisheries Association (YRDFA) Board executive committee was unable to obtain consensus on whether or how to restrict the practice of customary trade during times of low abundance before the Federal Subsistence Board meeting of 2013. Board members' concerns ranged from the need to limit the harvest of Chinook salmon to provide for adequate spawning and escapement numbers to the role of traditional practices in subsistence economies, including the need for opportunities for earned income and an equitable distribution of the harvest. At the 2013 Federal Subsistence Board meeting, the Board restricted the customary trade of Yukon River Chinook salmon to transactions between those who have a customary and traditional use determination—that is, between residents of rural communities. An additional 6 proposals offered various other limitations on the customary trade of Yukon River Chinook salmon, but the Board took no action on those in order to allow for time to evaluate the effect of the initial restrictions.⁴ While discussing these proposed regulations, the Board identified the need for additional information regarding the nature and scope of customary trade of fish throughout the Yukon River, because Moncrieff's (2007) earlier work covered only the lower and middle areas of the Yukon River. Additionally, Regional Advisory Councils and community members remain concerned about these declines and the role of customary trade in changing patterns of salmon use. Therefore, this study documented traditional and contemporary practices of customary trade in upper Yukon River communities, with particular attention to understanding the nature and scope of customary trade and its role in a larger continuum of exchange practices. This research builds on earlier research on customary trade in the region (Brown, Godduhn, et al. 2015; Moncrieff 2007), focusing specifically on the customary trade of salmon in upper Yukon River communities. This project was conducted collaboratively by YRDFA and Alaska Department of Fish and Game (ADF&G) and funded by the USFWS, Office of Subsistence Management.

Study Objectives

The goal of this 2-year study was to develop case studies that address the following objectives:

1. Through ethnographic methods, describe how customary trade practices fit within the overall subsistence use of salmon in the upper Yukon area, both historically and in present times of declining salmon.
2. Using a household survey on barter and exchange practices, document the scope and local nature of customary trade in 3 upper Yukon River communities. Describe exchange networks and transactions in terms of the species and types (e.g., processing) of fish traded. Where possible, quantify transactions.

4. Alaska Business. 2013. "Federal Subsistence Board acts on proposals to change federal subsistence fisheries regulations." Accessed November 28, 2017.
<http://www.akbizmag.com/Alaska-Business-Monthly/January-2013/index.php?cp=4&si=60>

3. Improve understanding of the role of customary trade within a continuum of exchange practices, including any potential effects on customary trade resulting from declining runs within the context of subsistence management and uses.

RESEARCH METHODS

Ethical Principles for the Conduct of Research

The project was guided by the research principles outlined in the Alaska Federation of Natives Guidelines for Research⁵ and by the National Science Foundation, Office of Polar Programs, in its Principles for the Conduct of Research in the Arctic⁶, the Ethical Principles for the Conduct of Research in the North (Association of Canadian Universities for Northern Studies 2003), as well as the Alaska confidentiality statute (AS 16.05.815). These principles stress community approval of research designs, informed consent, anonymity or confidentiality of study participants, community review of draft study findings, and the provision of study findings to each study community upon completion of the research.

Project Planning and Approvals

Three upper Yukon River communities were initially selected for this study, and later a fourth was added because of issues arising during data collection in one of the original study communities (Figure 1-1). The proposed research was presented to the tribal councils in each community in order to receive their approvals for the project (Table 1-1). Data collection in the 3 original communities (Fort Yukon, Manley Hot Springs, and Stevens Village) took place during the fall and winter of 2014–2015. However, the Stevens Village data could not be used because the low sample size resulted in concerns about confidentiality. Principle investigators added Venetie as a study community in order to broaden the data set by including a community located away from the Yukon mainstem; data collection in Venetie was completed in the fall of 2016. In each community, investigators hired one or more community research assistants. Research staff and local assistants who led the data collection efforts are listed in Table 1-2.

The ethnographic research for this project included anthropological methods of participant observation, semi-structured interviews, and surveys. In each study community, researchers identified individuals who are active in customary trade and other exchange practices and willing to participate in the research. These key respondents represented a variety of demographic and economic variables within fishing households. Including these variables allows for consideration of the breadth of motivations for engaging in customary trade or other exchange practices in order to explore more broadly how salmon are distributed and general perspectives on the sale of subsistence-caught fish.

Systematic Household Surveys

Community-level characterizations of customary trade were made through the use of a short, confidential survey on barter and trade practices by community households (Appendix A). The survey was primarily designed to document local views and prevalence of different types of exchange involving salmon, in addition to quantifying or estimating the actual extent of those practices on a household or community level. The survey prompted respondents to characterize why they participate in barter and customary trade, their history and frequency of participation, and what types of resources were exchanged. Respondents were also asked to describe the actual barter and customary trade exchanges their household engaged in during the study year, including the amounts of each resource given and received. Finally, the survey asked about general exchanges in the community and which resources are most commonly exchanged. Household surveys were administered during ethnographic fieldwork both independently of and in conjunction with key respondent interviews.

5. Alaska Federation of Natives. 2013. “Alaska Federation of Natives Guidelines for Research.” Alaska Native Knowledge Network. Accessed September 14, 2017. <http://www.ankn.uaf.edu/IKS/afnguide.html>

6. National Science Foundation Interagency Social Science Task Force. 2012. “Principles for the Conduct of Research in the Arctic.” Accessed September 14, 2017. <http://www.nsf.gov/od/opp/arctic/conduct.jsp>

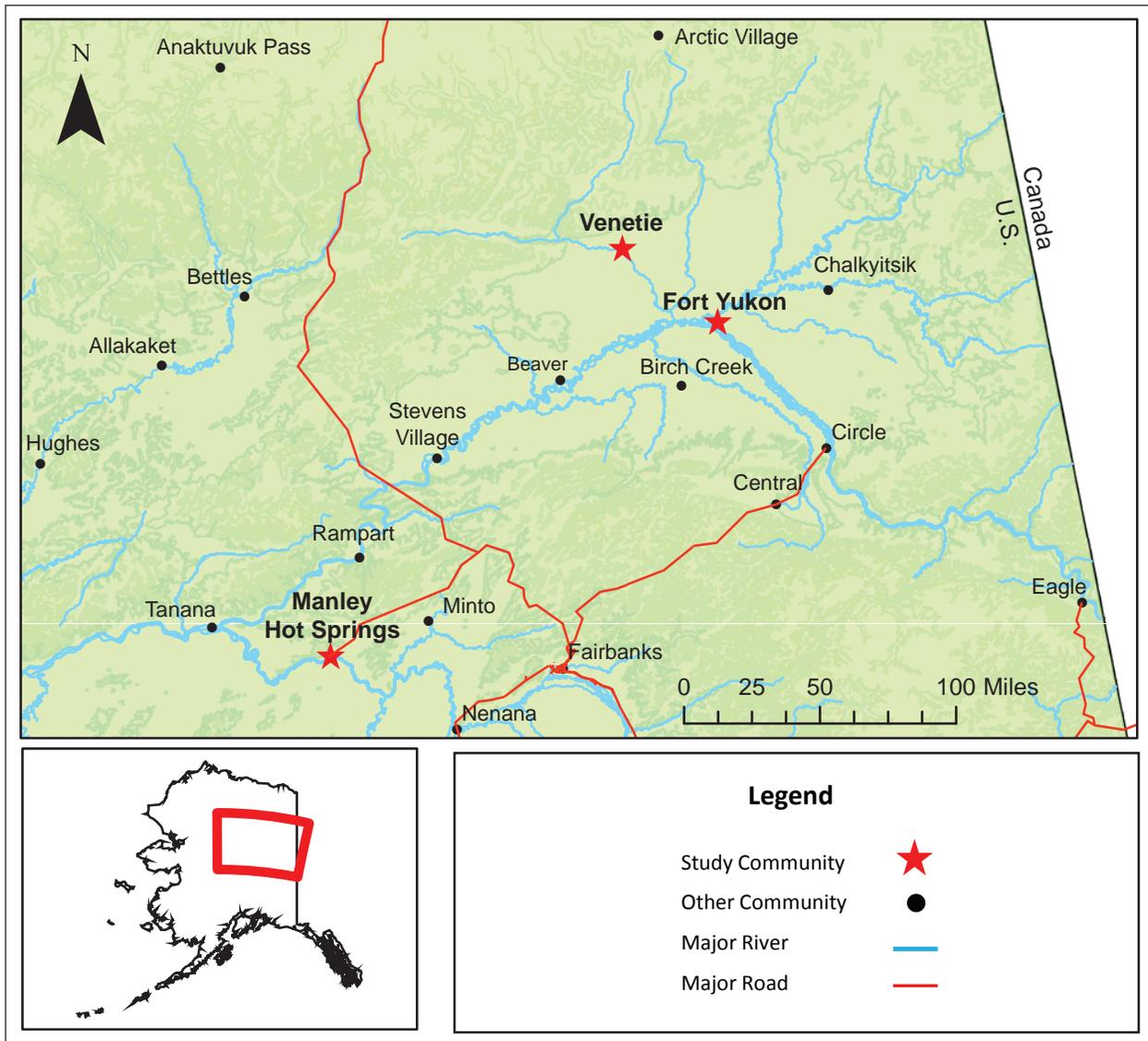


Figure 1-1.—Location of study communities, 2015 and 2016.

Table 1-1.—Dates of community meetings and fieldwork, study communities, 2015 and 2016.

Community	Community approval meeting	Fieldwork	Community data review meeting
Manley Hot Springs	September 26, 2014	February 3–7, 2015	TBD
Fort Yukon	September 24, 2014	March, April 2015	October 14, 2017
Venetie	August 18, 2016	November 2–7, 2016	TBD
Stevens Village	February 5, 2015	May 26–30, 2015	N/A

Source ADF&G Division of Subsistence, 2017.

Table 1-2.–Project staff, 2015 and 2016.

Task	Name	Organization	
Northern Regional Program Manager	Caroline Brown	ADF&G Division of Subsistence	
Principal Investigator	Caroline Brown	ADF&G Division of Subsistence	
	Catherine Moncrieff	Yukon River Drainage Fisheries Association	
	Pam Amundson	ADF&G Division of Subsistence	
Administrative support	Tamsen Coursey-Willis	ADF&G Division of Subsistence	
	Deanne Lincoln	ADF&G Division of Subsistence	
	Marylynn Kostick	ADF&G Division of Subsistence	
Data Management Lead	Marylynn Kostick	ADF&G Division of Subsistence	
Programmer	Marylynn Kostick	ADF&G Division of Subsistence	
Data Entry	Margaret Cunningham	ADF&G Division of Subsistence	
	Jon Jeans	ADF&G Division of Subsistence	
	Zayleen Kalalo	ADF&G Division of Subsistence	
	Lehua Otto	ADF&G Division of Subsistence	
	Kayla Schommer	ADF&G Division of Subsistence	
	Data Cleaning/Validation	David Koster	ADF&G Division of Subsistence
		Margaret Cunningham	ADF&G Division of Subsistence
James Magdanz		ADF&G Division of Subsistence	
Brooke McDavid		ADF&G Division of Subsistence	
James Magdanz		ADF&G Division of Subsistence	
Data Analysis	Brooke McDavid	ADF&G Division of Subsistence	
	Brooke McDavid	ADF&G Division of Subsistence	
Cartography	Brooke McDavid	ADF&G Division of Subsistence	
Editorial Review Lead	Rebecca Dunne	ADF&G Division of Subsistence	
Production Lead	Rebecca Dunne	ADF&G Division of Subsistence	
Field Research Staff	Caroline Brown	ADF&G Division of Subsistence	
	Catherine Moncrieff	Yukon River Drainage Fisheries Association	
	Alida Trainor	ADF&G Division of Subsistence	
	Brooke McDavid	ADF&G Division of Subsistence	
	Jason Esler	ADF&G Division of Subsistence	
	Local Research Assistant	Julie Peter	Venetie community member
		Kritsten Charlie	Venetie community member
Elaine Evans		Manley Hot Springs community member	
Stephen O'Brien		Manley Hot Springs community member	
Julie Mahler		Fort Yukon community member	

Source ADF&G Division of Subsistence, 2017.

Table 1-3.–Sample achievement, study communities, 2015 and 2016.

Sample information	Community		
	Fort Yukon ^a	Manley Hot Springs	Venetie ^a
Initial estimate of total households	229	56	72
Final estimate of total households	225	51	69
Initial household sample	95	56	34
Households moved or occupied by nonresident	4	5	3
Households added to sample (to replace refusals and no contacts)	0	0	11
Revised household sample (survey goal)	91	51	42
Households surveyed	64	25	26
Households failed to be contacted	21	18	6
Households declined to be surveyed	5	8	10
Total households attempted to be surveyed	91	51	42
Refusal rate	7.2%	24.2%	27.8%
Percentage of sample surveyed	70.3%	49.0%	61.9%
Percentage of total households surveyed	28.4%	49.0%	37.7%

Source ADF&G Division of Subsistence household surveys, 2015–2016.

Survey administration followed the sampling technique used by the ADF&G Division of Commercial Fisheries post-season subsistence salmon harvest survey. Post-season surveys were administered to a stratified random sample of all households in each community in order to capture information from households that participate in the salmon fishery at different levels. The strata represent fishing effort from heavy harvesters to nonharvesting households. Because many salmon exchanges occur between fishing households and nonfishing households, the sample for this research included households in all strata. The exception to this sampling strategy was in Manley Hot Springs, where post-season surveys are not conducted, but instead residents complete and submit permits if they fish. As a result, researchers attempted a census of the community. Confidentiality was maintained through the use of identification codes instead of residents' names or addresses. Households and individuals were assigned numerical codes before surveys began. The household code and survey tracking sheet was maintained by the lead researcher during survey administration and remained in his or her custody after survey completion.

The final sampling results are summarized in Table 1-3.

Ethnographic Interviews

The key respondent interviews provide additional context for the quantitative data. Researchers attempted to interview 5–8 individuals per community, depending on the population of the community.

Researchers identified key respondents through a snowball sampling design as well as from preliminary results of the survey. Generally, most community members are aware of those who are active or skilled in an activity such as fishing or trade (Usher 2000). While researchers were in the study communities, they consulted with tribal governments, community councils, and local research assistants to identify key respondents to interview.

Key respondents were interviewed using a semi-structured interview format outlining general areas of knowledge and developed in advance by ADF&G, YRDFA, and tribal personnel (Appendix B). Respondents were compensated for their time, and interviews were audio-recorded. In addition to gathering qualitative data through the key respondent interview protocol, researchers took notes during interviews to provide additional context. Key respondents were informed that in order to maintain confidentiality their names would not be included in this report; instead they would be referred to by unique but anonymous codes.

Interview and Survey Implementation

Fieldwork began with a community meeting to explain the project, answer questions about customary trade regulations, and explore community perspectives on customary trade. Investigators and assistants worked together to contact survey households, identify key respondents, and obtain informed consent before beginning surveys or interviews.

Manley Hot Springs was identified as a relevant study community because of its unique fishing history and proximity to the Tanana and Yukon rivers. A community meeting was held in September 2014 in Manley Hot Springs to discuss the scope of work and research objectives (Table 1-1). The project was approved by the Manley Hot Springs Traditional Council, a federally recognized tribe, and fieldwork was conducted in February 2015. ADF&G researchers hired local research assistants to help with data collection (Table 1-2).

During project design, Stevens Village was identified as a desirable study community particularly because of its connection to other Yukon Flats communities, and its proximity to the abundant fishing area known as the Rapids and to the Yukon River Bridge, which could possibly create more exchange networks with residents in Fairbanks or other road-connected communities. The Stevens Village Tribal Council approved the project, and fieldwork was conducted there in June 2015 (Table 1-1). However, after reviewing the preliminary data from the survey ADF&G and YRDFA staff decided to exclude the results from Stevens Village because of confidentiality concerns. At the time of data collection, researchers were only able to contact 5 of an estimated 7 permanent households. Such a small number of participants led to a concern that researchers would not be able to write about the results effectively without jeopardizing the anonymity of respondents. Stevens Village residents also declined to participate in ethnographic interviews. Without this valuable component, researchers felt unable to accurately contextualize or characterize the nature of exchange networks in Stevens Village. As a result, the research team pursued Venetie as an alternative community.

Fort Yukon was identified as an important study community because it is the largest and oldest community in the upper Yukon River region. YRDFA researcher Catherine Moncrieff attended the Gwichyaa Zhee Gwich'in Tribal Government meeting Fort Yukon in September of 2014 to request permission to conduct the project in Fort Yukon (Table 1-1). Representatives of the tribal government reviewed the interview and survey protocol and provided feedback. The project was approved, and Moncrieff conducted fieldwork in March and April of 2015 with one ADF&G researcher and one local research assistant (tables 1-1 and 1-2).

After conducting fieldwork in Fort Yukon, researchers were interested in adding a community located off the mainstem Yukon River in an attempt to document the exchange networks that exist between communities with different resource bases. Venetie is located 45 river miles up the Chandalar River from its confluence with the Yukon River, and residents have much less access to salmon than the other communities in this study. The Village of Venetie Tribal Government and the Venetie Village Council gave their approval for research to take place within the community during a scoping meeting in August 2016 (Table 1-1). Three ADF&G researchers traveled to Venetie in November 2016 and provided training to 2 local assistants (Table 1-2), who helped contact households to arrange surveys and ethnographic interviews. Venetie Village Council staff was also helpful in identifying and assisting researchers contact respondents.

Following data collection, survey forms were reviewed for completeness and accuracy by the surveyor. Where necessary, responses were coded following standardized conventions used by Division of Subsistence to facilitate data entry prior to sending them to the Information Management Section of the Division of Subsistence.

DATA ANALYSIS AND REVIEW

Staff within the Information Management Section created database structures within a Microsoft (MS) SQL⁷ Server to hold the survey data. The database structures included rules, constraints, and referential integrity to insure that data are entered completely and accurately. Data entry screens were set up using MS Access, although the data were stored in MS SQL Server. Full backups of the database occurred daily, and transaction logs were backed up hourly to ensure the safety of entered data. All data were entered twice and compared programmatically for inconsistent data entry. Double data entry ensures more accurate transfer of information from the coded survey forms into the database and is a standard practice within data processing for the Division of Subsistence. Data did not pass to the processing phase until inconsistencies between the twice-entered data set were eliminated. To facilitate their use for data correction and editing, household survey forms were electronically scanned. Forms did not have household name information, but were numbered so that they could be matched to the information that was entered.

Once data were entered and confirmed through double data entry, information was processed with the use of the Statistical Package for the Social Sciences (SPSS) Version 20. Initial processing includes the performance of standardized logic checks of the data. Logic checks are often needed in complex data sets where rules, constraints, referential integrity do not capture all of the possible inconsistencies that may appear.

After survey information was analyzed using SPSS, results were exported into MS Excel where a variety of pivot tables were used to summarize findings. Because of the small sample size in each community, the data were not expanded to estimate trends across the community and do not account for unsurveyed households. Additionally, the large variation in the types and amounts of resources exchanged by respondents did not allow for missing values to be mean replaced. Cases where missing data affect totals will be explained in results. Pounds of wild foods exchanged are estimates calculated using the conversion factors found in Table 1-4. Visone network mapping software (Version 2.16) was used to create network diagrams that visually represent the matrix of resources exchanged and to depict the geographic patterns of resource exchanges between communities.

Because the data was collected using a stratified design, which favors higher harvesting households, responses for participation in customary trade and barter were evaluated to establish whether or not the sample could be considered representative without adjustment for sampling design. This evaluation revealed that there was no detectable differences in these strata groups with respect to participation, thus the sample was treated as being representative of the community, in spite of the sampling regime. The evaluation of this information also suggests potential differences between the strata groups in reasons for participation and individual trade details; however, with relatively small sample sizes and limited sets of valid responses, it is not clear that these differences indicate that the selected households are not generally representative of the community at large.

Subsequent to the key respondent interviews, audio recordings were transcribed. Investigators analyzed the content of each interview, compiled a table of comments by subject area, and prepared separate narrative summaries for each study community. Researchers identified general themes that emerged in the data set, such as patterned regularities, comparisons of different perspectives, and key events or observations in order to draw connections between the variety of different kinds of information and experiences located in different individuals' interviews (see Miraglia 1998). These emergent themes formed the basic structure of the coding system employed through ATLAS.ti, a qualitative data analysis software. The software allowed a thorough exploration of local observations as well as specific analytical exercises such as identifying the co-occurrences of particular observations or the degree to which certain observations were documented across communities. Additionally, information documented in the interviews was analyzed alongside the survey data to identify convergences and divergences in the individual pictures presented by each method (see Krieg et al. 2007; Magdanz et al. 2007).

7. Product names are given because they are established standards for the State of Alaska or for scientific completeness; they do not constitute product endorsement.

Table 1-4.—Conversion factors.

Resource	Reported Unit	Processing	Conversion Factor
Wild resources			
Chum salmon	Half pint	Jarred, smoked	0.3 lb
Chum salmon	Gallon	Dried	4.8 lb
Chum salmon	Gallon	Dried, smoked	4.8 lb
Chum salmon	Individual	Dried	6.4 lb
Chum salmon	Individual	Fresh, unprocessed	8.5 lb
Chum salmon	Individual	Frozen, processed	7.6 lb
Chum salmon	Individual	Frozen, unprocessed	8.5 lb
Chum salmon	Individual	Not reported	8.5 lb
Chum salmon	Pint	Not reported	0.6 lb
Chum salmon	Pint	Jarred, smoked	0.6 lb
Chum salmon	Pound	Strips	1.0 lb
Coho Salmon	Pound	Dried	1.0 lb
Coho Salmon	Individual	Filletted	4.6 lb
Coho Salmon	Individual	Frozen, unprocessed	7.4 lb
Chinook salmon	Gallon	Strips	4.8 lb
Chinook salmon	Half pint	Jarred, smoked or other	0.4 lb
Chinook salmon	Individual	Fresh, unprocessed	15.0 lb
Chinook salmon	Pint	Canned	0.8 lb
Chinook salmon	Pint	Jarred	0.8 lb
Chinook salmon	Plastic carrying bag (2 gal. capacity)	Strips	9.6 lb
Chinook salmon	Pound	Fresh, unprocessed	1.0 lb
Chinook salmon	Pound	Jarred	1.0 lb
Chinook salmon	Quarts	Not reported	1.6 lb
Sockeye salmon	Individual	Not reported	4.2 lb
Salmon roe	Pound	Fresh, unprocessed	1.0 lb
Unspecified salmon	Quarts	Strips	1.2 lb
Unspecified salmon	Half pint	Canned	0.4 lb
Unspecified salmon	Individual	Fresh, unprocessed	10.3 lb
Unspecified salmon	Individual	Frozen, unprocessed	10.3 lb
Unspecified salmon	Pound	Jarred, smoked or other	1.0 lb
Halibut	Pound	Not reported	1.0 lb
Unspecified fish	Individual	Not reported	10.3 lb
Unspecified fish	Individual	Frozen, unprocessed	10.3 lb
Unspecified fish	Pound	Frozen, unprocessed	1.0 lb
Caribou	Gallon	Dried	3.8 lb
Caribou	Half pint	Not reported	0.3 lb
Caribou	Individual	Smoked	97.5 lb
Caribou	Individual	Frozen, unprocessed	130.0 lb
Caribou	Individual	Not reported	130.0 lb
Caribou	Pint	Not reported	0.6 lb
Caribou	Pound	Frozen, unprocessed	1.0 lb

-continued-

Table 1-4.–Continued.

Resource	Unit	Processing	Conversion Factor
Wild resources, continued			
Moose	Gallon	Dried	3.8 lb
Moose	Gallon	Fresh, unprocessed	5.0 lb
Moose	Individual	Not reported	540.0 lb
Moose	Pound	Dried	1.0 lb
Moose	Pound	Dried, smoked	1.0 lb
Moose	Pound	Frozen, unprocessed	1.0 lb
Moose	Pound	Not reported	1.0 lb
Unspecified large land mammals	Pound	Not reported	1.0 lb
Unspecified ducks	Individual	Not reported	1.9 lb
Unspecified scoter	Individual	Not reported	2.3 lb
Unspecified geese	Individual	Fresh, unprocessed	4.6 lb
Berries	Gallon	Fresh, unprocessed	4.0 lb
Berries	Gallon	Not reported	4.0 lb
Berries	Half pint	Not reported	0.4 lb
Wood	Cords	Split and dried	No conversion
Market resources			
Gasoline	Gallon	No process	\$7.00
Gasoline	Dollar	No process	\$1.00
Groceries	Individual	No process	\$5.00
Groceries	Pound	No process	\$5.00
Cigarettes	Individual	No process	\$100.00
Baked Goods	Individual	Baked	No conversion
Baked Goods	Loaf	Baked	No conversion
Labor	Hour	No process	No conversion
Use of fishing location	None	No process	No conversion
Knowledge	None	No process	No conversion
Tarp	Individual	No process	\$20.00
Ammunition	Individual	No process	\$20.00

Source ADF&G Division of Subsistence, 2017.

FINAL REPORT ORGANIZATION

This report summarizes the results of research into the exchange practices of upper Yukon River residents in Manley Hot Springs, Fort Yukon, and Venetie. The findings are organized by study community. Each chapter includes a description of the community, history of the local fishery, and a contemporary fishing profile as well as a summary and analysis of barter and customary trade exchange characteristics by community residents.

ADF&G provided a draft report to USFWS Office of Subsistence Management. The report was finalized after receipt of comments.

2. FORT YUKON

Catherine F. Moncrieff

COMMUNITY BACKGROUND

In late March and early April of 2015, researchers from the Yukon River Drainage Fisheries Association (YRDFA) and the Alaska Department of Fish and Game (ADF&G) Division of Subsistence visited Fort Yukon to conduct ethnographic interviews and a short survey on exchange practices. A local research assistant was hired to assist primarily with the survey work. The ethnographic interviews took place with 7 Fort Yukon residents. These key respondents were all male and ranged in age from 28 to 71. In addition to the oldest and youngest, 2 men were in their 30s and 3 were in their 50s at the time of the interviews. The older respondents were born in Fort Yukon, and the younger ones were born in Tanana, Fairbanks, and Anchorage, reflecting the modern practice of rural residents traveling to give birth in a regional hospital. They were all exposed to their fishing culture at a young age, either through their own immediate or extended families, and continued to participate throughout their lives. All have experience with fish wheels, and most have experience with gillnets. The oldest key respondent was still fishing the year before the interviews took place. The second oldest did not fish the year before the interviews due to low salmon abundance and resulting fishing restrictions. Most of the key respondents started fishing independently between the ages of 12 and 25, although some started rod and reel fishing at 10 years old (040115FYU5). Another owned and drove his own boat at 12 years old (040115FYU6). One respondent built his own fish wheel at 15 years old (040115FYU6) and partnered with an older cousin to check it.

Respondents were asked about their personal fishing history; terms related to the exchange of salmon, barter, and trade in their community; their personal experience with barter and trade; and their knowledge of regulations and restrictions related to customary trade. As described in the Methods section, researchers had a survey goal of 95 households based on a stratified sample of the 229 households in Fort Yukon during the survey period (Table 2-1). The household survey was conducted with 64 of 95 households, or 70% of the sample (30% of the total households in the community). The research team was unable to contact 20 households, and 5 declined to participate.

Approximately 514 people lived in Fort Yukon during the research period (Table 2-1). Fort Yukon is the largest Athabascan community in Alaska and is one of the oldest permanent settlements in Interior Alaska (Sumida and Andersen 1990). The community is located in the middle of the Yukon Flats at the confluence of the Yukon and Porcupine rivers (Figure 1-1; Plate 2-1). It is 5 miles north of the Arctic Circle. Yukon Flats National Wildlife Refuge as well as Native lands surround the community. Fort Yukon is located in the continental climate zone and has extreme temperature differences with extremely cold winters and warm summers. Extended periods of -50°F to -60°F often occur in the winter¹ and temperatures can average above 70°F in the summer². In the Fort Yukon area, the Yukon River is ice-free from the near the end of May through mid-September.³ Fort Yukon is accessible only by air and water transportation. Most goods and people arrive by air, but river barges and boats provide additional services in the summer.

According to the U.S. Census Bureau, per capita income in Fort Yukon for the period 2010–2014 was \$23,989 (Table 2-1). The Alaska Department of Commerce, Community and Economic Development (ADCCED) reports that 66% of the population was employed and 52% of those employed were employed

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1. Alaska Department of Commerce, Community, and Economic Development (ADCCED) Division of Community and Regional Affairs, Juneau. n.d. "Alaska Community Database Online: Community Information." Accessed September 22, 2017. <http://commerce.alaska.gov/dcra/DCRAexternal>. Henceforth *ADCCED n.d.*
 2. Western Regional Climate Center, Reno, n.d. "Fort Yukon, Alaska (503175) Period of Record Monthly Climate Summary." Accessed November 6, 2017. <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?akfory>
 3. ADCCED n.d.

Table 2-1.—Sample achievement and demographic characteristics, Fort Yukon.

Sample achievement¹	
Estimated households in community	229
Initial households in sample	95
Households moved or occupied by nonresident	4
Revised number of households in sample (survey goal)	91
Households surveyed	64
Households failed to be contacted	20
Households declined to be surveyed	5
Total households attempted to be surveyed	91
Refusal rate	7.2%
Percentage of sample surveyed	70.3%
Percentage of total households surveyed	28.4%
Demographics²	
Estimated population	514.0
Percentage Alaska Native	92%
Median household income	\$33,194.00
Per capita income	\$23,989.00

Source ¹ADF&G Division of Subsistence household surveys, 2015.

² U.S. Census Bureau, American Community Survey 5-year estimate, 2010–2014.

in local government jobs.⁴ Paid work opportunities are available in Fort Yukon through the Yukon Flats School District, Tanana Chiefs Conference, Yukon Flats Subregion, U.S. Public Health Service, City of Fort Yukon, Gwichyaa Zhee Tribal Council, and other state and federal agencies. Seasonal firefighting positions are sometimes available through the U.S. Department of Interior, Bureau of Land Management.

Fort Yukon was founded by Alexander Murray in 1847, and the Hudson’s Bay Company began operating there as a Canadian outpost in Russian territory in 1846 (Slobodin 1981). It was an important trade center from 1846 to 1869. A mission school was established in 1862. After the purchase of Alaska in 1867, the Alaska Commercial Company took over the operations of the Fort Yukon Trading Post. Economic activity in the area was energized by the fur trade of the 1800s, the whaling boom on the Arctic Coast (1889–1904), and the Klondike Gold Rush (1898–1915). Fur trade continued into the 1950s. Fort Yukon continues to be an administrative center for the Yukon Flats region; the community has more opportunities for wage employment and a more diverse population than the smaller communities in the region (Sumida and Andersen 1990).

The people of Fort Yukon are descendants of the Yukon Flats, Teedriinkjik River, Draanjik River, and Porcupine River Gwich’in Athabascan regional bands⁵ that lived throughout the Yukon Flats. At the time of contact, there were about 10 Gwich’in regional bands, each centered around the drainage of a major river (Slobodin 1981). In 1858, the Hudson’s Bay Company surveyed the population of Fort Yukon and the surrounding area and found 842 people, including 6 regional bands living in the area of the upper Yukon and Porcupine rivers (Osgood 1970rep.:15). The nuclear family was a fundamental unit, but the Gwich’in also paired up with their older parents, families of siblings, or other families. Larger groupings surrounded competent family heads, enabling groups to efficiently exploit and defend resources. A local group might be made up of 6 to 8 households of nuclear families living near each other and interacting more frequently with

4. ADCCED n.d.

5. ADCCED n.d.



Plate 2-1.—Boat launch at Fort Yukon.

each other than the rest of the band. By 1879, the population was reduced to approximately 230 people due to an outbreak of scarlet fever following contact with Euroamericans (Shimkin 1955:223). The population increased over time. Immigration from surrounding camps added to the population growth as people moved for construction jobs and staffing of the Air Force communications site in Fort Yukon in the 1940s and 1950s (Sumida and Andersen 1990).

The seasonal subsistence round in Fort Yukon begins in April or May with the breakup of river and lake ice. People spend this time setting nets, trapping, hunting, and harvesting ducks, geese, and cranes. In June, the activity shifts to fishing when nets are set for whitefishes, ciscoes, northern pike, and other fish near tributary streams. Sometimes logs are gathered and transported during the high water of breakup (Sumida and Andersen 1990). When the salmon runs are strong, fishing for salmon is the primary activity during July and August. The Chinook salmon run ends by late July, and the chum salmon run becomes stronger in mid-August. Nonsalmon fish are also an important component of the harvest. The year-round availability of nonsalmon species adds to their importance, and several types of whitefish are among these important species (Kosky and Mull 2009). During the summer, northern pike and Arctic grayling are caught with rod and reel. Sheefish are often caught in fish wheels. Some households catch late run chum and coho salmon into September. Fishing continues into the winter with nets set under the ice for whitefishes and other nonsalmon species.

Trading has been a part of Gwich'in culture since before contact with Euroamericans. In one of the earliest historical accounts of the area, Archdeacon Robert McDonald, who lived in Fort Yukon from 1862 to 1871, described the Gwich'in patterns of exchange and resource sharing. His accounts included exchanges with neighboring bands and traveling on trading expeditions (Caulfield 1983:146). Gwich'in people had preexisting trading partners and trading patterns as part of a well-established trade network reaching back to prehistoric times (Slobodin 1981). This trade network connected groups within an area and also linked them, indirectly, to groups as far away as Siberia (Hosley 1981:546). Trading parties were made up of adults

of all ages and their children with a leading man who held the trading relationship. The trading pattern from the pre-contact era continued for a full generation after Euroamericans established fur trade posts. The high-status men who had the trade relationships in the pre-contact era continued to be the leaders in the post-contact trade initially, monopolizing the interactions with the Europeans (Slobodin 1981). In the late pre-contact period, intertribal trade likely increased and involved the Gwich'in acting as middlemen between the tribes geographically surrounding them.

Food is distributed in Fort Yukon through sharing, barter, and customary trade. The community relies on experienced fishers and hunters to distribute the wild food they harvest. People in Fort Yukon give away moose during the hunting season and salmon during the fishing season. Some fishers prefer to share whole, fresh salmon, and others prefer to share it jarred or smoked. Food is often shared first with elders, then family, and finally friends and neighbors. Fishers give fish away at their fish wheel, at the cutting table, and through potlatches, and they deliver it to people. People in Fort Yukon share food widely, and when they learn someone is out of meat, they often share what they have, "Family and then friends, if they're out of meat my wife will give it to them" (040115FYU7).

Fish is often shared, bartered, or traded because it is a high quality food for people and dogs. Most respondents do not intend to harvest extra fish for selling but if fishers catch more in their net or wheel than they can process in a day, then they share, trade, or sell it.

Some people work and they don't have always have time. If you catch 5 fish one day, you're like here's 5 fish and I'm busy and I have no room for that in my freezer and no time to cut them up. You can freeze them and thaw them back out later and process them at a later date. (040115FYU2)

One fisher shares fresh fish with his mother and aunts and they give him jarred fish or moose portions.

The only fish that I process myself would be fillets or pieces that I freeze or wrap for myself or some of my aunties [who] can't fish anymore, or my grandparents. You know they're just too old to cut or handle a fish like that, or salmon. So, I'd cut it up and make it into, or freeze wrap it, shrink wrap it in the um, make them in little manageable pieces. (040115FYU2)

This fisher also shares salmon with family friends, with his sisters, and with "nice people that he randomly runs into when he has salmon." He takes salmon with him to share when he travels. He takes a couple of jars for when he runs into people at meetings. He may hope that they will buy him lunch but he does not ask.

A Fort Yukon resident described her community's strong ethic of sharing, and how children are taught this at a young age through sharing with elders.⁶ She described how "people talk about 'just giving' and sometimes something is given back but it is never asked for." A Gwich'in tale demonstrates the burden of holding on to things. The tale teaches that if you give things away, then you do not have to carry them with you, weighing you down. During their semi-nomadic days, the Gwich'in people did not have the ability to carry a lot with them as they traveled. Thus, giving or sharing benefited both the giver by relieving them of their burden and the receiver who could use the goods. Further, some people in Fort Yukon believe that there is a flow of goods and deeds that you should not block, or it may stop. They believe that things come to you when you need them. If someone asks you for something (e.g., money, food) and you have it, you should give it and something else will flow to you.⁷

In contemporary times, salmon are usually exchanged while fresh. Most food is exchanged seasonally. According to the ethnographic interviews, Fort Yukon residents exchange ducks, geese, and muskrats in the spring. In the winter people exchange moose, caribou, and lynx (040115FYU6).

6. G. Alexander, personal communication, March 2015.

7. S. Alexander, personal communication, March 2015.

History of Local Salmon Fishery

Three species of salmon occur in the upper Yukon River: Chinook, chum, and coho salmon. Fall chum salmon are harvested in the greatest numbers in Fort Yukon, followed by Chinook salmon (Table C2-1). The subsistence harvests of all salmon species have fluctuated since 1990 (Figure 2-1). Fall chum salmon is an important subsistence staple that feeds both people and dogs in Fort Yukon. In some years, fishers have reported harvesting over 10,000 fall chum salmon for dogs, or 85% of their fall chum salmon harvest (Figure 2-2; Table C2-1). The harvest of fall chum salmon in Fort Yukon has been 4,000 or more annually since 2002 with the exception of 2009, when residents harvested only 2,600. Chinook salmon harvests in Fort Yukon have also fluctuated. From 1990 through 1997, Chinook salmon harvests were often between 3,000 and 6,000 annually. Harvests dropped to 1,783 in 1998 and to 976 in 2000. Between 2001 and 2008, Chinook salmon harvests in Fort Yukon were roughly between 2,000 and 4,000 annually, with a low of 836 in 2009. Most recently, from 2010 to 2013 harvests were between 1,300 and 2,500, followed by an extreme low of 10 Chinook salmon harvested in Fort Yukon in 2014, a year of subsistence fishery closures.

We were really looking forward to fish every spring, every June, we look forward to the king [Chinook] salmon. But the silvers [fall chum] were actually good last year...Just not the same though, it's just not the same as the kings though. I love the kings. (033115FYU4)

The Gwichyaa Gwich'in term for Chinook salmon is *łuk* or *łuk choo*, and the term for chum salmon or silvers is *khii* or *shii*. Two types of fall chum salmon are recognized locally, "silvers" and "dog salmon." Silvers are fall chum salmon which are silver in color as compared to the very red, partially decomposing, dog salmon. Silvers are reserved for humans as "eating fish," and dog salmon, as their name implies, are fed to dogs. The silvers are richer in flavor and in better condition than the dog salmon. They migrate on the south side of the Yukon River and arrive first in mid-August, while the dog salmon run along the north side of the river towards spawning streams in the Porcupine River drainage (Sumida and Andersen 1990).

Historically, dip nets with netting made out of spruce root or babiche were used in the Fort Yukon area of the Yukon River to take trapped fish out of weirs (Slobodin 1981; 040115FYU6). Salmon and whitefishes were caught using weirs and basket fish traps (Slobodin 1981). Fishing groups were, and often still are, related through kinship representing extended families residing in multiple households. In 1987, Fort Yukon residents occupied 12 fish camps located upstream and downstream of the community (Sumida and Andersen 1990).

Contemporary Salmon Fishing Profile

The Yukon River is heavily braided through the Yukon Flats in the Fort Yukon area. When the water rises during the summer fishing months, the river carries woody debris, which floats and creates a hazard for boats and nets. This debris can rip or clog nets and damage fish wheels, making it difficult to catch salmon.

Today, the number of occupied fish camps may vary due to low Chinook salmon runs and related fishing restrictions. Fort Yukon families tend to use the same general fishing areas from year to year, but the actual site for a setnet or fish wheel may change due to bank erosion, water levels, and the constantly changing channels, bars, and eddies. Most people in Fort Yukon fish in District 5D, either upriver or downriver of the community, and a few people fish in nearby tributaries.

Fall chum salmon continue to make up the highest percentage of the total salmon harvest in Fort Yukon, followed by Chinook salmon generally (Figure 2-1; Table C2-1). Chinook salmon is still the favorite by most residents as food for humans and is not commonly used to feed dogs (Andersen 1992). Chum salmon continues to make up the greatest percentage of salmon used to feed dogs (Figure 2-2). Over the period 1991–2014, an average 48% of the total salmon caught in Fort Yukon was used as food for dogs (Figure 2-2; Table C2-1). Additionally, the percentage of salmon caught to feed dogs has been increasing in recent years. In 2014, the percentage of the salmon harvest used for dogs reached 85%, the highest point since data became available in 1991.

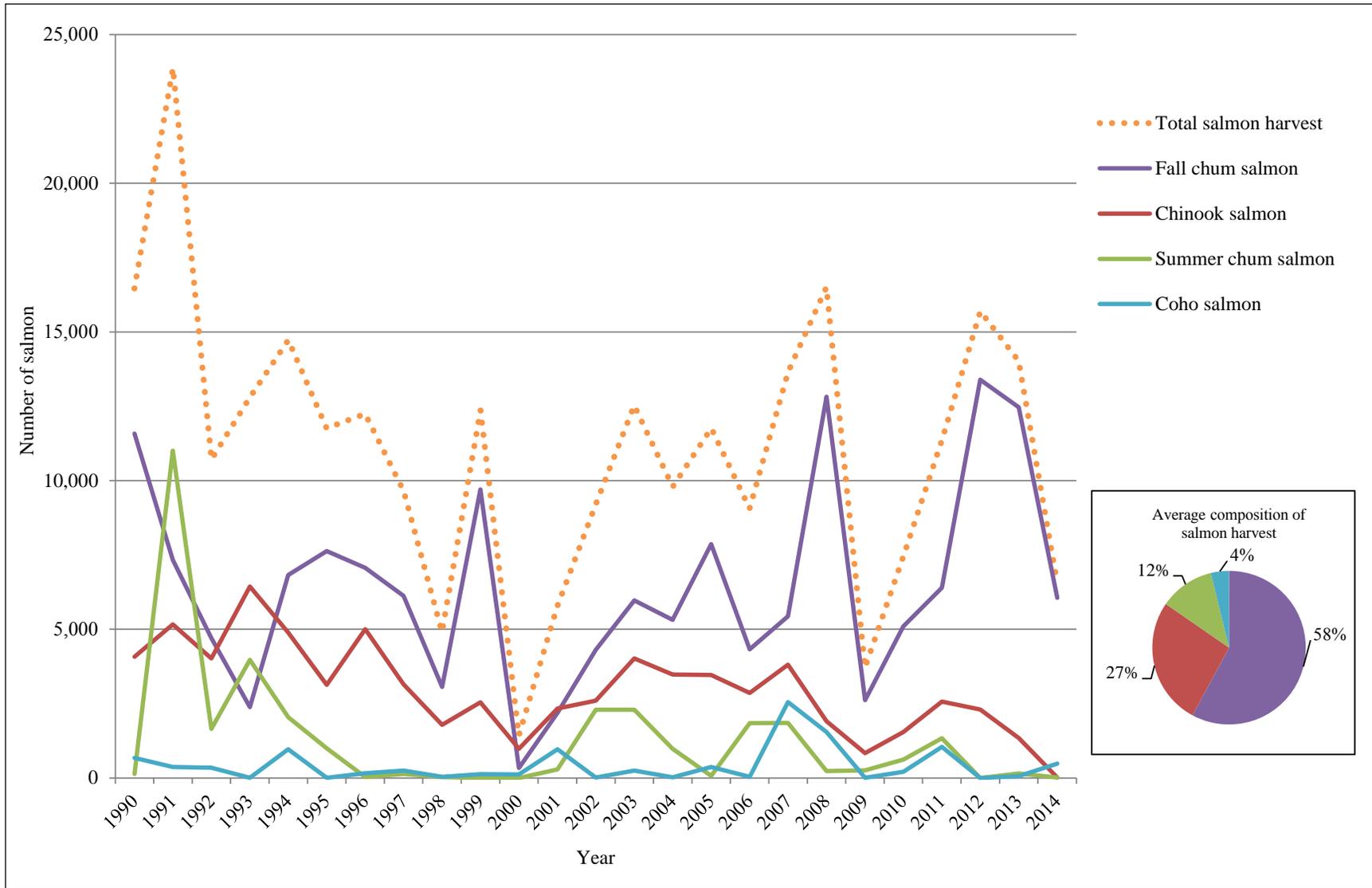


Figure 2-1.—Salmon harvests and composition of salmon harvests, by number, Fort Yukon, 1990–2014.

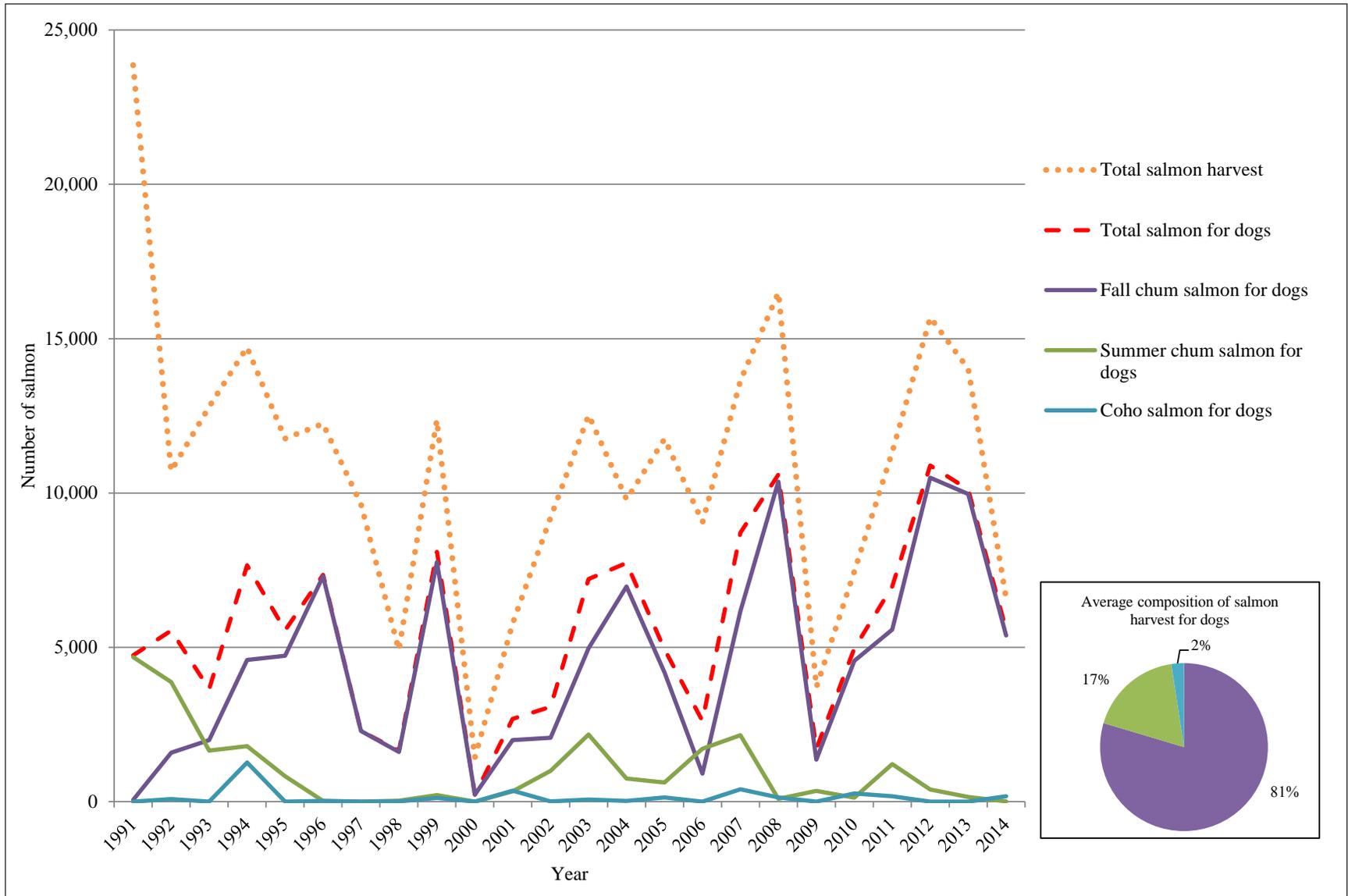


Figure 2-2.—Salmon harvests for dogs and composition of salmon harvests for dogs, by number, Fort Yukon, 1990–2014.



Plate 2-2.—Fish wheel in the Yukon River near Fort Yukon.

Chinook salmon generally arrive between late June and mid-July and run through July. After the Chinook salmon run, there is a lull in the salmon migration through Fort Yukon. By mid-August, fall chum salmon start to arrive.

Chinook salmon are harvested in Fort Yukon using set gillnets or fish wheels. Fish wheels are more difficult to build and set in the river; but once in the river, they are convenient (Plate 2-2). Gillnets are less cumbersome and easier to move, making it easier for fishermen to reset their nets in order to adjust to changes in regulations, shorter fishing openings, changing fishing times, and net-size restrictions (Plate 2-3). Some of the older fishers participating in the ethnographic interviews in this study reported that they used fish wheels when they were younger and that gillnets did not become popular until the 1970s (040115FYU6). According to respondents, today there are fewer fish wheels in use and more gillnets. A key respondent reported that he observed that fishermen began to switch to gillnets because they no longer wanted to harvest thousands of fish and be required to work full-time to process them. With full-time employment becoming more available in the 1970s, fishers did not have the time to process thousands of salmon (040115FYU6). This respondent further reported that in the 1960s unemployment was high, at 95%, and people spent their time with their families at fish camp (040115FYU6). A gillnet is a better tool to harvest 50 or 100 salmon. As this respondent reports,

...a few years ago I counted about twenty of them [fish wheels]. Last summer, I think only about 6 or 7 of them operated because of the shut downs and the shortage, it wasn't worth the effort to set one up. And more people are gillnetting because of that. About 30 gillnetters now, yeah I count them... (040115FYU6)

In addition to increased gillnet fishing, a reduced availability of Chinook salmon, changes in fishing regulations, and increased cost of fishing have changed the fishing profile in Fort Yukon in recent years.

A recent and significant change in the fishing in Fort Yukon is the reduced numbers of Chinook salmon. Data collection for this study followed the first time the opportunity to fish for Chinook salmon was not provided at all—the first full closure of the Chinook salmon fishery in 2014. Respondents commented throughout the interviews about their inability to harvest Chinook salmon and the great effects on their diet, schedule, cultural activities, sharing, and trading networks. Distribution of Chinook salmon is an important connection between family, neighbors, and others, and in a Chinook salmon shortage, these connections begin breaking down. “We can't give none out because we barely catch enough for ourselves. Now, I'm just making it, barely catching enough for ourselves, we're out already” (033115FYU1).



Plate 2-3.–Set gillnet in the Yukon River near Fort Yukon.

Fishers were upset because allowable fishing timing shifted to the end of the fishing season. Families attempted to switch to fall chum salmon as their primary eating fish due to the restrictions and low Chinook salmon numbers. In the fall, the weather becomes more rainy, cloudy and colder, making drying salmon more difficult. Some respondents were not happy about shifting to chum salmon from Chinook salmon.

You have to wait, all...the summer is over before you can fish. So you are in a rush. You are told to fish and use the chum salmon to substitute for your needs, for lack of king salmon, but the drying weather is practically over, you just can't fish in the summer, that's the whole change. (040115FYU5)

Fishers also report that “fishing has become more expensive” (040115FYU6). Increased expense could be due to the increase in fuel prices, use of greater horsepower motors, regulations requiring new net sizes, increased fuel needed to check nets or monitor fish wheels more often (033115FYU4), and other inflation- and regulation-related costs. Brinkman et al. (2014) documented the effect of high gasoline prices on subsistence practices in the Yukon Flats. Their results show that increased gasoline prices, in part, have reduced the distance fishers travel and number of trips they can afford to make to fishing sites.

Survey respondents say that people in Fort Yukon most commonly exchange fish and moose (Table 2-2). Thirty-five of the survey participants consider that fish⁸ are the most commonly exchanged resources in Fort Yukon. Moose was the next resource thought to be most commonly exchanged in Fort Yukon (19 participants).

Receiving wild food, whether through sharing, barter, or customary trade, is valued and always appreciated.

8. Including unspecified fish, chum salmon, Chinook salmon, and coho salmon.

Table 2-2.—Resources considered to be exchanged most often, Fort Yukon.

Resource	Responses
Chum salmon	
Fresh, unprocessed	6
Dried, smoked	2
Not reported	1
Chinook salmon	
Fresh, unprocessed	3
Dried	2
Unspecified salmon	
Fresh, unprocessed	2
Dried, smoked	1
Unspecified fish	
Fresh, unprocessed	8
Frozen, unprocessed	1
Jarred	1
Filletted	1
Not reported	7
Moose	
Fresh, unprocessed	7
Frozen, unprocessed	9
Dried	2
Not reported	1
Large land mammals	
Frozen, unprocessed	1
Muskrat	
Skinned	1
Wood	
Unprocessed	1

Source ADF&G Division of Subsistence household surveys, 2015.

Note 57 of 65 respondents provided a response.

based on his immediate needs. “If I needed gas, I would trade. It depends on my immediate situation. My decision-making process would be based on my immediate needs at the time” (040115FYU5).

Forty-seven percent of the respondents in Fort Yukon who barter do so more than once a year, 22% barter about once a year, and 13% barter less than once a year (Table 2-6). People in Fort Yukon do not often act as middlemen by bartering an item received in a barter transaction. Sixty-three percent of the respondents to the survey reported that they had never acted as a middleman in a barter exchange (Table 2-7). Only one respondent reported often acting as a middleman in barter transactions.

The ethnographic respondents described several primary reasons for bartering. Fish species are a high-quality food for people and dogs (040115FYU6). They are distributed to feed people (033115FYU3) and maintain relationships. Salmon is a regular part of the local diet, and those

BARTER

Local Characterization of Barter

Although residents of Fort Yukon demonstrated close observance of a variety of locally important exchange practices, they do not always know or understand the legal terms for these practices. When people exchange one subsistence food for another food, nonfood item, or service, such as salmon for moose or gas, they call it “trade.” Fort Yukon residents did not frequently use the term “barter,” or even know the term at all. Others say no term is used, that barter is an unspoken activity that happens automatically. One respondent described a transaction and the terminology typically used, “we never say trade, the word trade you know? You just tell them what you’ve got and they’ll say, ‘I brought some salmon with me’ ... Okay, right on!” (040115FYU6). One respondent stated that customary trade and barter are words used by politicians and people that need things: “Barter means to the average person that you can trade subsistence foods such as fish for cash to buy gas” (040115FYU5).

Participation in Barter

Nearly 50% of the survey participants in Fort Yukon say they barter; respondents have been bartering for an average of 22 years (Table 2-3). Nearly three-quarters of respondents reported that they barter because they (72%) or the receiver (72%) needed subsistence food (Table 2-4). They also barter because they have extra (38%), because they needed something else (31%), or because someone else needed something other than subsistence food (25%). Three respondents reported reasons for bartering that were not asked about on the survey. These included bartering for variety in their diets, for dog food, and “just to share.” The most important reasons respondents in Fort Yukon barter are because they need food (41%) or someone else needed subsistence food (28%, Table 2-5). One respondent said that his transactions are

Table 2-3.—Participation in barter, Fort Yukon.

All respondents	
Number of respondents who have ever bartered	32
Percentage of respondents who have ever bartered	50.0%
Respondents who barter	
Average number of years since first barter	22
Range of years since first barter	2 to 55
Average number of reported reasons for bartering	3

Source ADF&G Division of Subsistence household surveys, 2015.

Table 2-4.—Reasons for bartering, reported by respondents who have ever bartered, Fort Yukon.

Reason	Number	Percentage ^a
We needed subsistence food	23	72%
Someone else needed subsistence food	23	72%
We needed something (not subsistence food)	10	31%
Someone else needed something (not subsistence food)	8	25%
We had some extra subsistence food	12	38%
Other reason ^b		
Variety	1	3%
Dog food	1	3%
Just to share	1	3%

Source ADF&G Division of Subsistence household surveys, 2015.

Note Respondents could select more than one reason.

a. Percentage of respondents who have ever bartered.

Table 2-5.—Most important reasons for bartering, reported by respondents who have ever bartered, Fort Yukon.

Reason	Number	Percentage ^a
We needed subsistence food	13	41%
Someone else needed subsistence food	9	28%
We needed something (not subsistence food)	3	9%
Someone else needed something (not subsistence food)	2	6%
We had extra subsistence foods	1	3%
Other reason ^b		
Variety	1	3%
Most important reason not reported	3	9%

Source ADF&G Division of Subsistence household surveys, 2015

a. Percentage of respondents who have ever bartered.

b. Reasons volunteered by respondents.

Table 2-6.—Frequency of bartering, reported by respondents who have ever bartered, Fort Yukon.

Frequency	Number	Percentage ^a
More than once a year	15	47%
About once a year	7	22%
Less than once a year	4	13%
Almost never	2	6%
Not reported	4	13%

Source ADF&G Division of Subsistence household surveys, 2015.

a. Percentage of respondents who have ever bartered.

do [rely on these exchanges], they ain't got no real cash income... a lot of people just live on \$300–400 cash a month... they don't have any real income" (040115FYU6). Oftentimes, the person receiving fish in the barter transaction may rely on it: "An old lady uptown want moose or fish meat and has no way of getting it besides bartering, it might be pretty important for her" (033115FYU3).

Many barter transactions in Fort Yukon start as sharing and turn into barter (040115FYU6, 033115FYU1, 040115FYU2). Community members share their harvest with friends, relatives, and people who appear to need it (033115FYU4). The transaction changes to barter when the initial recipient shares something in return. In many cases, when the harvester shares he does not ask for or expect anything in return, yet appreciates being given something he needs (040115FYU2, 040115FYU6). Harvesters benefit when goods are shared in return with them, but they also appreciate just making other people happy by sharing (033115FYU3).

Fort Yukon residents often engage in barter through delayed reciprocity. Some respondents explained that barter of salmon begins as sharing, and the recipients may share something later when they have something to share. However, the initial sharing is done with no expectations or requirements.

This is how it works, this nice person asks, 'do you have any fish?' Yeah, I can spare a fish. So you give them a fish, right. And you don't ask them for anything in return. And then later on they bring you something, 3, 4 days later, they think of what they can give and they bring it. (033115FYU1)

Someone who has shared a resource may receive fish for his or her dogs in the spring, when people clean out their freezers, or berries and jam throughout the year. Another respondent described delayed reciprocity from his aunts, who make candy, donuts, and bread (040115FYU2). One week this fisher gave his aunt and uncle a salmon; the next week they gave him 3 loaves of freshly baked bread. When this respondent's hunting partner had to miss hunting season, he shared a large portion of moose with his partner, knowing that his generosity will one day be repaid (040115FYU2). He hopes that his partner will invite him over for a caribou dinner because his partner has access to caribou through his relatives. He calls it "just an exchange of commodities."

who grew up eating it have a strong desire to continue (033115FYU4). Some respondents barter salmon because others need the food and the harvester has extra, or more than they can process, so they distribute their salmon to avoid wasting it (040115FYU2).

In a large rural community like Fort Yukon, more people are present than are able to fish or are skilled at fishing. Successful harvesters often provide food for the community through sharing or exchanges. "They called me and said, 'I need fish and I have gas to trade, if you want to trade'" (033115FYU1). This respondent described his role in feeding his community: he regularly harvests as much to share as he does to feed his own family. Reduced abundance of Chinook salmon has restricted his ability to continue harvesting at this level. "Before the restrictions, we used to keep 100 [Chinook salmon] and give out 100 to the town" (033115FYU1). "Some people

Table 2-7.—Frequency of bartering resources received in barter, reported by respondents who have ever bartered, Fort Yukon.

Frequency	Number	Percentage ^a
Never	20	63%
Rarely	3	9%
Often	1	3%
Not reported	8	25%

Source ADF&G Division of Subsistence household surveys, 2015.

a. Percentage of respondents who have ever bartered.

Some respondents consider that they have trading relationships with many people, that they have always done this, and that they learned this type of activity from their parents and grandparents (040115FYU6, 040115FYU5).

I'm pretty sure my grandparents did it. My mom would tell me stories. During springtime with people coming down, people would stand on the bank waiting to give them fresh food in exchange for dried muskrat or dried moose meat. They'll trade right there on the bank when they come to town. From spring up people will be there on the first barge, they're coming in with fresh fruits and vegetables. Waiting to make the trade. (040115FYU6)

When a harvester has extra and distributes it, recipients will likely contribute to the cost of the harvest by sharing what they have.

If I shot a moose there's a guarantee that I am going to be giving some to somebody and they're going to be giving me something. Whether it be gas or ammo, or if they chip in for me to go fishing, something like that. Or, I've chipped in on fish nets, or have had people buy me fish nets. And then I've turned around and have given them fish back. (040115FYU2)

As people age or they become less able to harvest fish, someone who used to harvest a lot of salmon and provide for his family and friends may later receive more salmon than he shares.

I got some real good friends, they give me fish. They help me out and every now and then I give them 5 gallons of gas or something. But mostly just out of friendship and they are getting lots. Maybe take a ride with them, help them move fish around, you know. But this year a lot of trading going on, lots. I got a lot of fish, I've got a freezer full. (040115FYU6)

In other cases, a former harvester may provide equipment and knowledge when he or she is no longer actively hunting and fishing. One former harvester described how he still 'provides' subsistence foods for his family by providing the household where his extended family gathers to process, store, and eat the harvest (040115FYU7). "I don't do nothing anymore...but the whole family come here to eat it. You know I've got family next door, I've got them there...and they come around [to eat and process]." Although this respondent does not actually harvest anymore, his family still gathers, processes the harvest, and eats at his house. His sons bring moose meat and fish, he provides the freezer and the vacuum packer, and his wife is in charge of the processing.

Summary of Reported Barter Transactions

A total of 1,434 lb of wild foods and \$960 of market resources were given through barter in Fort Yukon during this study period, and 1,733 lb of wild food and \$226 of market resources were received (Table 2-8). The amount of resources given per transaction ranged from 1 lb to 300 lb for wild foods and \$70 to \$500 for market resources. The amount of resources received per transaction ranged from less than 1 lb to 425 lb for wild foods and \$20 to \$80 for market resources. Fort Yukon households participated in an average of just over 2 barter transactions per bartering household during the study year (Table 2-9). Of the 64 surveyed households, 20 households (31%) reported 45 barter transactions that took place during the study year (tables 2-1, 2-8, and 2-9). Barter exchanges ranged from 1 to 12 transactions per household (Table 2-9). Details of all barter transactions reported on the surveys can be found in Table 2-10 and will be summarized below.

Fish (Chinook salmon 22%, chum salmon 26%, unspecified salmon 7%, and unspecified fish 23%) provided 78% of the total weight of resources given away during barter transactions, more than all other resources combined (Figure 2-3). Additionally, geese accounted for 14% and moose made up 8% of all resources given during the study year. Similarly, more fish (chum salmon 49%, sockeye salmon 5%, and unspecified fish 3%), primarily chum salmon, was received by weight than any other resource, making up more than half of all resources received through barter during this study period (Figure 2-4). Moose was received

Table 2-8.—Summary of reported barter transactions, Fort Yukon, 2014.

Total number of barter transactions reported	45
Number of households that reported barter transactions	20
Percentage of barter transactions between Fort Yukon households	73%
Resources given	
Total weight of wild foods given	1,434 lb
Range of weight given per transaction	1 lb to 309 lb
Total value of market resources given	\$960
Range in value of market resources given per transaction	\$70 to \$500
Resources received	
Total weight of wild foods received	1,733 lb
Range of weight received per transaction	<1 lb to 425 lb
Total value of market resources received	\$226
Range in value of market resources received per transaction	\$20 to \$80

Source ADF&G Division of Subsistence household surveys, 2015.

Table 2-9.—Reported barter transactions at the household level, Fort Yukon, 2014.

Number of households reporting barter transactions	20
Percentage of surveyed households reporting barter transactions	31%
Number of households bartering with other communities	5
Percentage of bartering households exchanging with another community	25%
Average number of barter exchanges per bartering household	2.25
Range in number of exchanges per household	1 to 12

Source ADF&G Division of Subsistence household surveys, 2015.

Table 2-10.—Reported barter transactions, Fort Yukon, 2014.

Giving							Receiving					Exchange Partner		
Resource	Processing	Amount	Units	Pounds	Monetary value	Harvest location	Resource	Amount	Units	Pounds	Monetary value	Transaction location	Residence	Relationship to respondent
Chum salmon	Fresh, unprocessed	12	Individual	102.0	-	Arctic Village	Caribou	0.5	Individual	65.0	-	Not reported	Arctic Village	Friend
Chum salmon	Fresh, unprocessed	12	Individual	102.0	-	Arctic Village	Caribou	0.5	Individual	65.0	-	Not reported	Venetie	Friend
Chum salmon	Fresh, unprocessed	10	Individual	85.0	-	Fort Yukon	Gasoline	4	Gallons	-	\$28	Fort Yukon	Fort Yukon	Friend
Chum salmon	Fresh, unprocessed	10	Individual	85.0	-	Fort Yukon	Gasoline	4	Gallons	-	\$28	Fort Yukon	Fort Yukon	Friend
Chinook salmon	Fresh, unprocessed	20	Individual	300.0	-	Fort Yukon	Gasoline	Not reported	Not reported	-	Not reported	Fairbanks	Fairbanks	Mother
Chinook salmon	Jarred	1	Pounds	1.0	-	Fort Yukon	Knowledge	N/A	N/A	-	N/A	Venetie	Venetie	Daughter
Chinook salmon	Jarred	1	Pounds	1.0	-	Fort Yukon	Knowledge	N/A	N/A	-	N/A	Arctic Village	Arctic Village	Daughter
Chinook salmon	Jarred	1	Pounds	1.0	-	Fort Yukon	Knowledge	N/A	N/A	-	N/A	Birch Creek	Arctic Village	Daughter
Chinook salmon	Fresh, unprocessed	5	Pounds	5.0	-	Fort Yukon	Caribou	1	Pint	0.6	-	Old Crow, Canada	Old Crow, Canada	Cousin
Chinook salmon	Fresh, unprocessed	Not reported	Not reported	-	-	Fort Yukon	Moose	Not reported	Not reported	-	-	Fort Yukon	Fort Yukon	Extended family
Chinook salmon	Jarred	12	Pint	9.8	-	Fort Yukon	Caribou	12	Half pint	3.8	-	Old Crow, Canada	Old Crow, Canada	Extended family
Salmon roe	Fresh, unprocessed	2	Pounds	32.0	-	Fort Yukon	Halibut	5	Pounds	5.0	-	Fairbanks	Fairbanks	Friend
Unspecified salmon	Fresh, unprocessed	10	Individual	103.0	-	Fort Yukon	Gasoline	10	Gallons	-	\$70	Fort Yukon	Fort Yukon	Friend
Unspecified fish	Not reported	Not reported	Not reported	-	-	Fort Yukon	Baked goods	1	Individual	-	Not reported	Fort Yukon	Fort Yukon	Not reported
Unspecified fish	Frozen, unprocessed	30	Individual	309.0	-	Fort Yukon	Gasoline	Not reported	Not reported	-	Not reported	Fort Yukon	Fort Yukon	Tribe
Unspecified fish	Frozen, unprocessed	2	Pounds	2.0	-	Fort Yukon	Baked goods	Not reported	Not reported	-	Not reported	Fort Yukon	Fort Yukon	Community member
Unspecified fish	Frozen, unprocessed	2	Pounds	2.0	-	Fort Yukon	Baked goods	Not reported	Not reported	-	Not reported	Fort Yukon	Fort Yukon	Community member
Unspecified fish	Frozen, unprocessed	2	Pounds	2.0	-	Fort Yukon	Baked goods	Not reported	Not reported	-	Not reported	Fort Yukon	Fort Yukon	Community member
Unspecified fish	Frozen, unprocessed	2	Pounds	2.0	-	Fort Yukon	Baked goods	Not reported	Not reported	-	Not reported	Fort Yukon	Fort Yukon	Community member
Unspecified fish	Frozen, unprocessed	2	Pounds	2.0	-	Fort Yukon	Baked goods	Not reported	Not reported	-	Not reported	Fort Yukon	Fort Yukon	Community member
Unspecified fish	Frozen, unprocessed	2	Pounds	2.0	-	Fort Yukon	Baked goods	Not reported	Not reported	-	Not reported	Fort Yukon	Fort Yukon	Community member
Unspecified fish	Not reported	Not reported	Not reported	-	-	Fort Yukon	Ammunition	1	Individual	-	\$20	Fort Yukon	Fort Yukon	Elder
Unspecified fish	Not reported	Not reported	Not reported	-	-	Fort Yukon	Unspecified large land mammals	4	Pounds	4.0	-	Fort Yukon	Fort Yukon	Elder
Caribou	Frozen, unprocessed	2	Pounds	2.0	-	Arctic Village	Moose	2	Pounds	2.0	-	Fort Yukon	Arctic Village	Friend
Moose	Dried	72	Pounds	137.1	-	Fort Yukon	Chinook salmon	Not reported	Not reported	-	-	Fort Yukon	Fort Yukon	Friend
Moose	Fresh, unprocessed	5	Gallons	25.0	-	Other Alaska	Chum salmon	10	Individual	85.0	-	Fort Yukon	Fort Yukon	Cousin
Moose	Dried, smoked	Not reported	Not reported	-	-	Fort Yukon	Not reported	Not reported	Not reported	Not reported	Not reported	Fort Yukon	Fort Yukon	Extended family
Moose	Jarred, unprocessed	Not reported	Not reported	-	-	Fort Yukon	Not reported	Not reported	Not reported	Not reported	Not reported	Fort Yukon	Fort Yukon	Extended family
Moose	Frozen, unprocessed	2	Pounds	2.0	-	Fort Yukon	Baked goods	Not reported	Not reported	-	Not reported	Fort Yukon	Fort Yukon	Community member

-continued-

Table 2-10.--Continued

Resource	Processing	Giving					Receiving					Transaction location	Exchange Partner	
		Amount	Units	Pounds	Monetary value	Harvest location	Resource	Amount	Units	Pounds	Monetary value		Residence	Relationship to respondent
Moose	Frozen, unprocessed	2	Pounds	2.0	-	Fort Yukon	Baked goods	Not reported	Not reported	-	Not reported	Fort Yukon	Fort Yukon	Community member
Moose	Frozen, unprocessed	2	Pounds	2.0	-	Fort Yukon	Baked goods	Not reported	Not reported	-	Not reported	Fort Yukon	Fort Yukon	Community member
Moose	Frozen, unprocessed	2	Pounds	2.0	-	Fort Yukon	Baked goods	Not reported	Not reported	-	Not reported	Fort Yukon	Fort Yukon	Community member
Moose	Frozen, unprocessed	2	Pounds	2.0	-	Fort Yukon	Baked goods	Not reported	Not reported	-	-	Fort Yukon	Fort Yukon	Community member
Moose	Frozen, unprocessed	2	Pounds	2.0	-	Fort Yukon	Baked goods	Not reported	Not reported	-	Not reported	Fort Yukon	Fort Yukon	Community member
Unspecified geese	Fresh, unprocessed	30	Individual	72.0	-	Fort Yukon	Ammunition	4	Individual	-	\$80	Fort Yukon	Fort Yukon	Friend
Unspecified geese	Fresh, unprocessed	7	Individual	2.0	-	Fort Yukon	Unspecified scoters	10	Individual	23.0	-	Fort Yukon	Fort Yukon	Cousin
Unspecified geese	Fresh, unprocessed	4	Individual	18.3	-	Other Alaska	Chum salmon	20	Individual	170.0	-	Fort Yukon	Fort Yukon	Extended family
Unspecified geese	Fresh, unprocessed	4	Individual	18.3	-	Fort Yukon	Chum salmon	20	Individual	170.0	-	Fort Yukon	Fort Yukon	Extended family
Ammunition	N/A	2	Individual	-	\$40	N/A	Unspecified ducks	2	Individual	3.8	-	Fort Yukon	Fort Yukon	Friend
Gasoline	N/A	Not reported	Gallons	-	-	N/A	Moose	Not reported	Not reported	-	-	Fort Yukon	Fort Yukon	Not reported
Gasoline	N/A	Not reported	Gallons	-	-	N/A	Moose	1	Individual	540.0	-	Fort Yukon	Fort Yukon	Father
Gasoline	N/A	500	Dollars	-	\$500	N/A	Moose	39	Pounds	39.0	-	Fort Yukon	Fort Yukon	Son
Gasoline	N/A	50	Gallons	-	\$350	N/A	Chum salmon	50	Individual	425.0	-	Fort Yukon	Fort Yukon	Friend
Gasoline	N/A	10	Gallons	-	\$70	N/A	Unspecified fish	5	Individual	51.5	-	Fort Yukon	Fort Yukon	Friend
Labor	N/A	8	Hours	-	N/A	N/A	Sockeye salmon	20	Individual	84.0	-	Copper Center	Copper Center	Cousin

Source ADF&G household surveys, 2015.

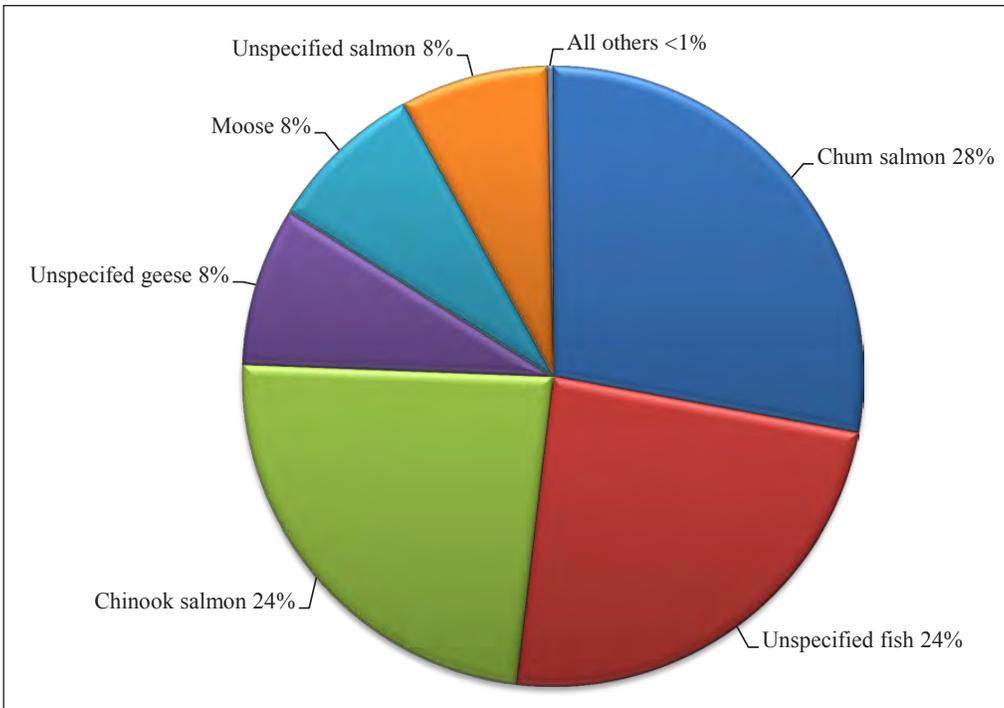


Figure 2-3.—Composition of wild resources given during barter, by weight, Fort Yukon, 2014.

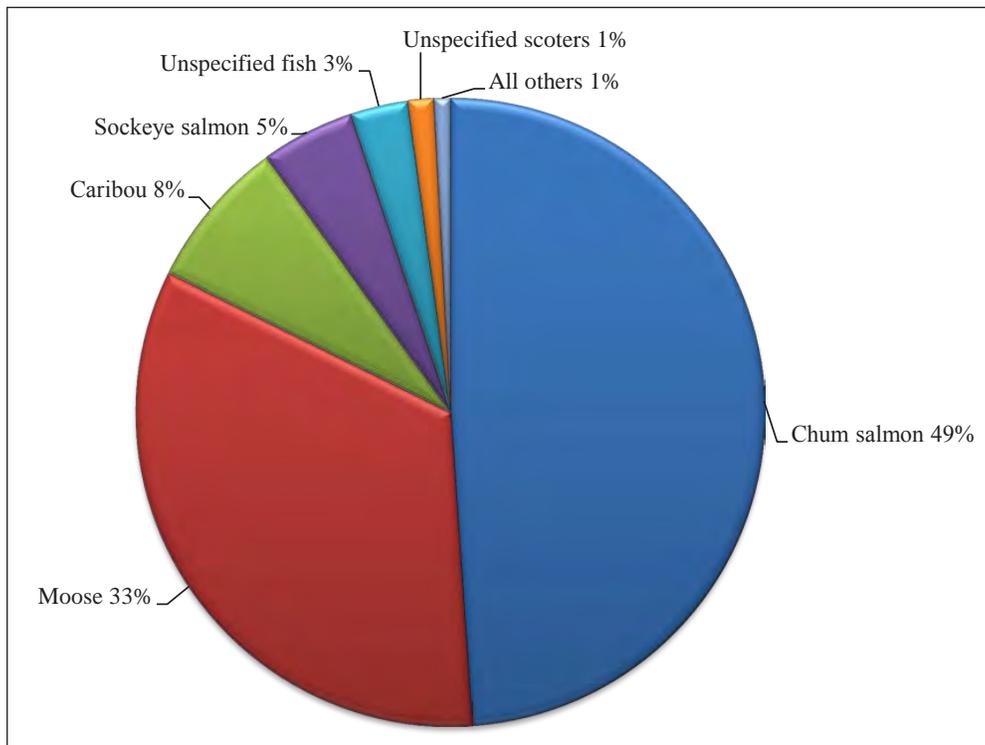


Figure 2-4.—Composition of wild resources received during barter, by weight, Fort Yukon, 2014.

Table 2-11.—Reported processing of wild resources given during barter, Fort Yukon, 2014.

Resource processing	Number of transactions
Chum salmon	
Fresh, unprocessed	4
Chinook salmon	
Fresh, unprocessed	3
Canned	4
Salmon roe	
Fresh, unprocessed	1
Unspecified salmon	
Fresh, unprocessed	1
Unspecified fish	
Frozen, unprocessed	7
Unknown	3
Caribou	
Frozen, unprocessed	1
Moose	
Fresh, unprocessed	1
Frozen, unprocessed	6
Dried	1
Dried, smoked	1
Jarred, unprocessed	1
Unspecified geese	
Fresh, unprocessed	4

Source ADF&G Division of Subsistence household surveys, 2015.

in the next highest proportion at 33% (Figure 2-4; Table C2-2). For both resources given and received, some respondents did not provide amounts (Table C2-2). The amounts of fish, Chinook salmon, moose, and gasoline would be higher and make up a greater percentage of the total if these values were not missing. For resources received, 2 responses did not include amounts for transactions involving moose and gasoline; these resources would make up a greater percentage of the total if the amounts were not missing.

When asked how the resources they gave away during barter transactions were processed, respondents reported that the majority were exchanged in an unprocessed state (Table 2-11; Table C2-2). Resources that were given away already processed included dried and smoked moose meat and canned Chinook salmon.

Overall, fish were given more frequently in barter transactions in Fort Yukon than other resource categories during the study year (Figure 2-5; Table C2-2). Moose and unspecified fish were the most frequently given resources: each was given in 10 barter transactions. However, only 4 households reported giving away moose and 3 gave away fish. Two households gave away Chinook salmon in a combined total of 7 transactions. Gasoline was given in 5 reported transactions. Resources given away less frequently included chum salmon, geese, caribou, ammunition, salmon roe, and labor.

Baked goods were received more than any other resource in barter exchanges, but these exchanges represented only 2 households and one of these received baked goods 12 times (Figure 2-5; Table C2-2). Gasoline and moose were received most frequently after baked goods; each was received in 5 barter transactions. Gasoline was received by 4 households, and moose was received by 5 households. Both chum salmon and caribou were received in 4 barter transactions. Figure 2-6 visually depicts the exchange of resources. The size of the circles, or nodes, corresponds to the total number of times each resource was given or received, and the width of the lines corresponds to the number of times each particular resource pair was exchanged.

One ethnographic interview respondent explained that salmon is traded more frequently because it is more plentiful than moose and yet only available to harvest once a year (033115FYU3). However, another respondent thought that moose was traded more often because the large amount of meat provided by a single moose does not fit in a freezer (040115FYU2). Fish is shared and exchanged in the summer, primarily when fresh, but some prefer to distribute processed salmon. According to respondents, when less Chinook salmon was available, there were fewer than usual exchanges involving this resource (040115FYU5).

One ethnographic respondent described a typical barter transaction as trading 1 or 2 Chinook salmon or 5 chum (silver) salmon in return for whitefish, moose, another subsistence resource, or fuel (033115FYU1). Reportedly, people do not exchange one kind of salmon for another, but they frequently trade Chinook salmon and chum salmon for fuel (033115FYU1). Fort Yukon residents might trade 2 Chinook salmon for about 4 gallons of gas, 10 chum salmon for 5 gallons of gas, or 1 Chinook salmon for 3 gallons of berries (033115FYU1). In addition, salmon is often bartered for moose meat. Moose is also bartered for fuel. Older people give hunters gas before a hunting trip. One leg of moose is traded for 10 gallons of gas [valued at \$70] (040115FYU7).

Some items are so highly valued that they are not exchanged or distributed often. One respondent (040115FYU6) values his salmon strips so highly that he rarely trades them, yet he exchanges other items such as jarred salmon and jam for dried caribou and moose meat.

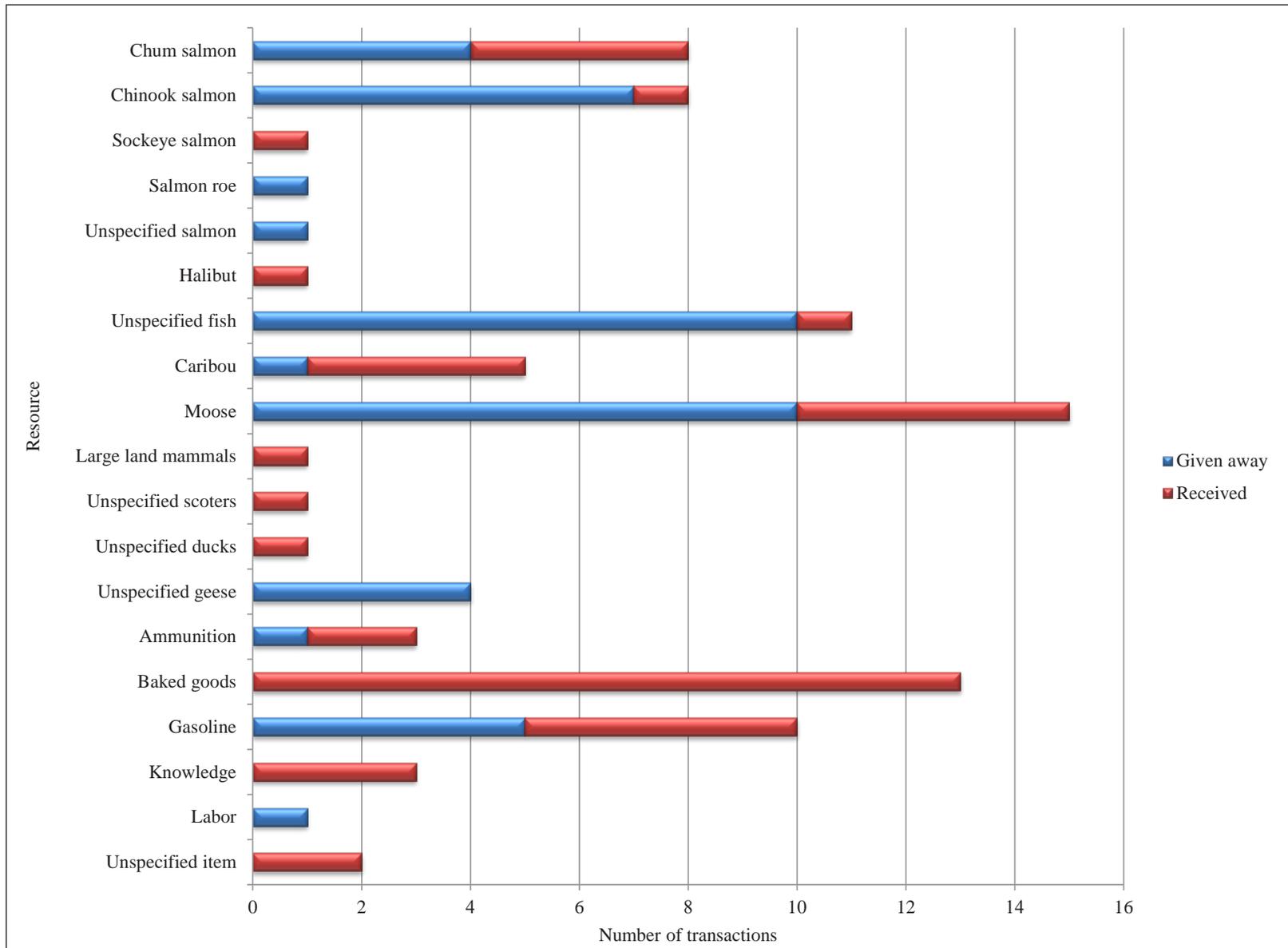


Figure 2-5.—Number of reported barter transactions by resource, Fort Yukon, 2014.

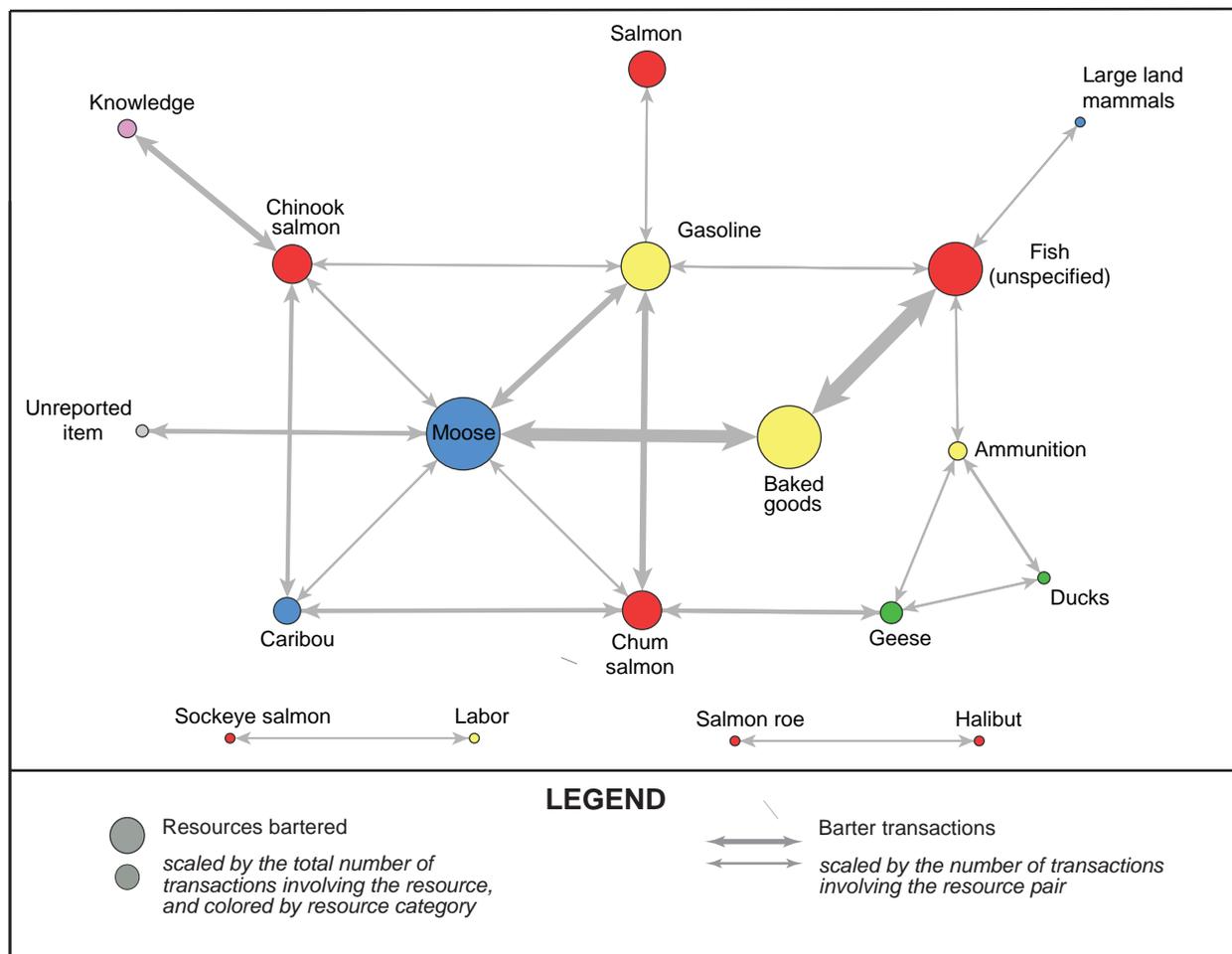


Figure 2-6.—Network of resources exchanged in barter transactions, Fort Yukon, 2014.

As mentioned above, sometimes trades are made with items other than wild resources. One fisher received winter boots from a friend once (040115FYU6). When he was in high school, a neighbor bought him school clothes because he always gave her meat. Similarly, he gave some dried fish to an uncle in Talkeetna and received accommodations and moose meat in return.

The majority of Fort Yukon barter transactions occurred in Fort Yukon between Fort Yukon community members and friends and involved locally harvested resources (tables C2-3 and C2-4). As Table C2-4 shows, nearly three-quarters (71%) of the barter transactions reported took place within the community of Fort Yukon. Figure 2-7 illustrates the barter exchanges between Fort Yukon households and exchanges with people in other communities. The direction of the arrow depicts the flow of resources from the giver to the receiver. The thickness of the lines represents the number of times each resource was exchanged. While most barter exchanges took place between Fort Yukon households, 13 exchanges took place with residents of other communities. In 2014, Fort Yukon respondents also bartered with people in Old Crow, Arctic Village, Venetie, Copper Center, and Fairbanks. Of the total 1,434 lb given during barter in Fort Yukon during the study period, 526 lb or 37% was given to residents of other communities (tables 2-8 and 2-10). Of the 1,733 lb received as barter transactions in Fort Yukon during this study period, 225 lb or 13% was received from another community. Five households conducted a total of 11 barter exchanges with households in other communities (tables 2-9 and C2-4). The ethnographic respondents described exchanges made with family and friends from the neighboring communities of Arctic Village, Venetie, Old Crow, Birch Creek, and Circle (040115FYU5, 040115FYU2). Often salmon from Fort Yukon is traded for caribou from these communities. A typical trade with another community might be 4 or 5 frozen Chinook salmon

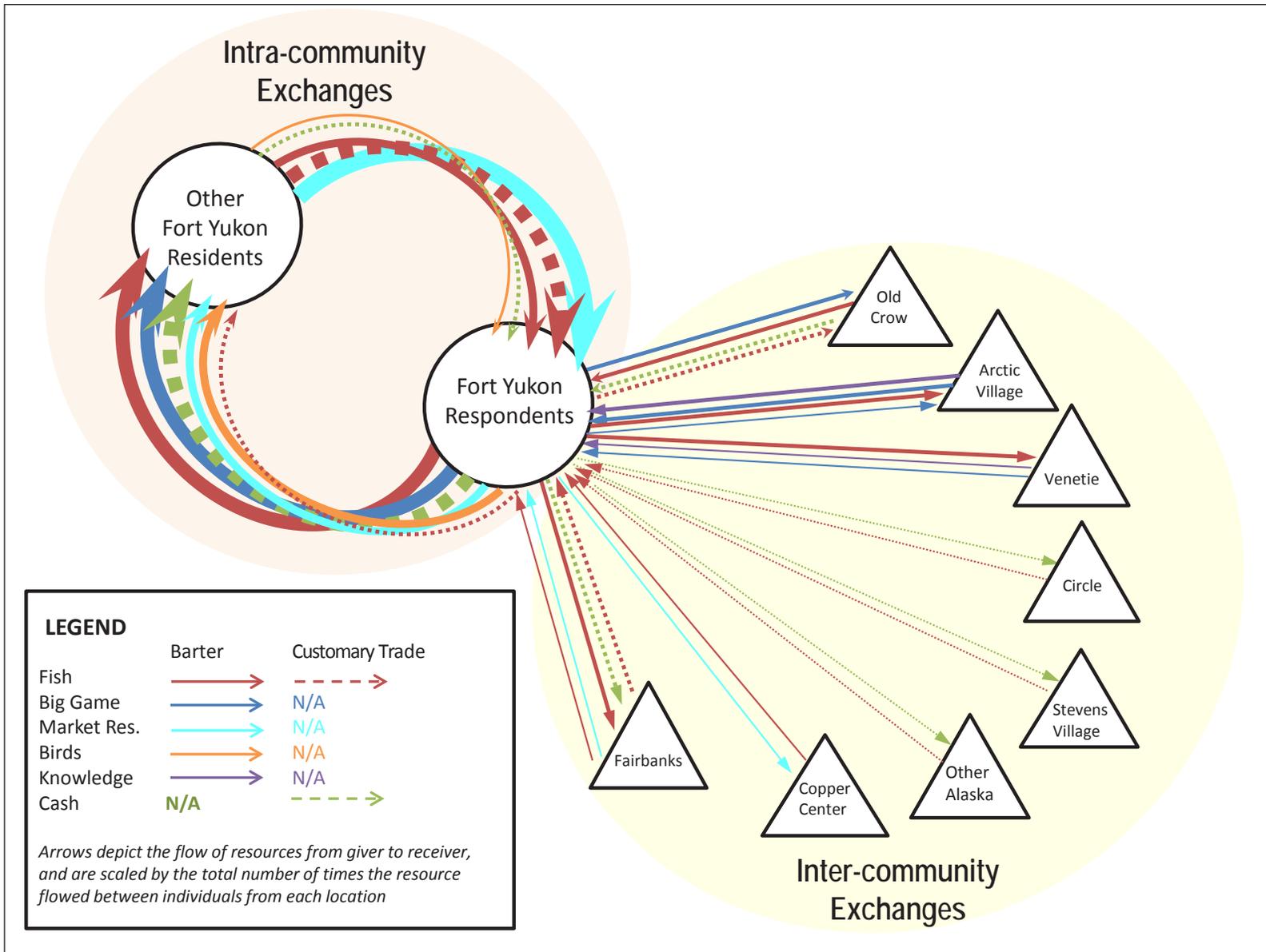


Figure 2-7.—Barter and customary trade network by location and resource, Fort Yukon, 2014.

for a small box of caribou that includes a variety of parts like the head, the heart, bones to cook, and fry meat (040115FYU7). Some fishermen in Fort Yukon share their salmon (whole, jarred, strips, and processed bellies) with friends and family from other communities because “they don’t get good salmon like what we get down here. Their fish is in a lot poorer shape because of the distance they travel” (033115FYU3). The communities of Venetie and Arctic Village have access to caribou, a resource desired by Fort Yukon residents.

I’ve sent fish to Venetie and other items for people and they have sent me some caribou [in the] spring. You know they have better access to caribou. I asked them to go hunting for me. Then I gave them like a fish [Chinook salmon], I gave him 50 pounds of rice because he needed rice for his dogs [and] I think I spent \$80 for gas and a box of ammo [\$40]. And they sent me down pretty much a whole caribou. (040115FYU2)

One fisher said that in the 1980s, he would save about 60 Chinook salmon each year for ‘trading’ or ‘exchanging’ for caribou from Arctic Village (040115FYU7). This fisher’s family enjoys caribou, and they know that people in Arctic Village like salmon. Today, with lower Chinook salmon numbers, he and his wife still barter salmon for caribou with their relatives in Arctic Village, but on a smaller scale.

One Fort Yukon fisher exchanges resources for knowledge. This respondent brings salmon to elders in Birch Creek, Arctic Village, and Venetie (033115FYU3). The elders give him caribou and share their knowledge with him. He considers the acquisition of knowledge a valuable part of his trade.

CUSTOMARY TRADE

Local Opinions about Customary Trade

Customary trade is an important part of the distribution system or sharing of resources in Fort Yukon. The term ‘customary trade’ is not used or recognized in Fort Yukon. When referring to the practice of trading subsistence resources for cash, respondents use the terms trade, buy, or sell (033115FYU3, 033115FYU1, 033115FYU4).

While in Fort Yukon, the research team heard much about a community ethic against intentionally harvesting more than you need with the intention to sell it.⁹ Many people in Fort Yukon explained that the sale of wild foods happens only occasionally and at a small scale (033115FYU4, 040115FYU7).¹⁰ If people in Fort Yukon have extra harvested resources, they can sell part of their harvest to gain cash to support their subsistence activities or to ensure others have what they need (040115FYU7, 040115FYU5). Cash has had an important role within the Yukon River resource distribution system as it has evolved over time (Moncrieff 2007). Some people are not able to harvest their own wild food, but do have access to cash. For instance, older people sometimes have cash but are not able to fish. They give cash to fishers who need financial support to be able buy gas, oil, or other necessities for fishing.

Some fishers in Fort Yukon have an aversion to accepting cash for salmon (033115FYU4, 040115FYU2), while others are willing to take cash for their salmon. “Some people are really generous and really appreciate it. I learned a long time ago if someone offers you something just take it. Don’t think about how they are living and don’t think they are poor. Just appreciate it” (040115FYU6). This fisher gives or shares salmon and sometimes, but not always, receives money for it. “If they have money to share, I can go buy gas or oil or something... We burn a lot of gas and oil running around.” Resources are often shared in Fort Yukon with no expectation of reciprocation. Cash is seen as another resource that supports the effort and cost associated with subsistence activities.

Fishers give salmon to their older relatives and neighbors and often receive money for gas. Although all the respondents shared varying amounts of their harvest, one fisher reported giving most of his harvest away in exchanges that he considers to be sharing; but his recipients respond by giving him gas money, thus

9. Gwichyaa Zhee Gwich’in Tribal Council meeting, September 2014.

10. Gwichyaa Zhee Gwich’in Tribal Council meeting, September 2014.

Table 2-12.—Participation in customary trade, Fort Yukon.

All respondents	
Number of respondents who have ever traded	25
Percentage of respondents who have ever traded	38.5%
Respondents who trade	
Average number of years since first trade	15
Range of years since first trade	1 to 55
Average number of reported reasons for trading	2

Source ADF&G Division of Subsistence household surveys, 2015.

creating an unintentional customary trade transaction. “I mostly shared...I would give [my harvest] to them older folks that live around here. And they would buy me gas and that’s good, because I’m going 20 miles downriver so it’s expensive for gas, especially around here” (033115FYU4). Once in a while people will help fishers by either purchasing or giving him fuel. Although the fishers find the cash or fuel helpful, they generally do not ask for it.

Characteristics of Participation in Customary Trade

As mentioned previously, parents in Fort Yukon teach their children to share by sending young children to deliver fish to elders. Most ethnographic interview respondents had personal memories of this from their childhood. In one recollection, an 8-year-old is sent with a big salmon to share with his grandmother. She may reward him with gifts or candy or give him some money to take to the store as a thank you. Some respondents told stories of children being instructed not to accept cash but learning that it is okay to accept things, for example cake or bullets. Most reported that children are not allowed to ask for anything. It was frequently stated that Grandmas started the tradition of exchanging salmon for cash. “My grandma used to give me a little aspirin bottle of change for ground squirrels when I was about 4. So I’ve been bartering and trading since then” (040115FYU2). “When I was 8...I loved it because I would get all the goodies.” (033115FYU1). One respondent (040115FYU7) described his experience of sharing rabbits he harvested when he was 12 or 13 years old. There was no refrigeration then, so he would give his rabbits to the older people. Once in a while they would give him candy or 50 cents for candy, but he never asked for it or expected it.

Some people buy and sell salmon in Fort Yukon as a way to meet their basic needs, to share their harvest, or to avoid waste. People feel a strong need to share, trade, sell, and buy fish because fewer people were fishing in 2014, yet many people want to eat fish. For some, distribution is based on how much the recipients want the fish or meat. Most people in Fort Yukon grew up eating fish and they excitedly wait for fish to arrive each summer.

Thirty-nine percent of Fort Yukon survey participants practice customary trade, and they have been trading an average of 15 years (Table 2-12). Of those who trade, 40% reported trading more than once a year, 24% reported trading about once a year, and 24% reported trading less than once a year (Table 2-13). Fifty-two percent of the survey participants that trade indicated that needing subsistence food was their reason for trading (Table 2-14). Other reasons included: someone else needed something other than subsistence food (28%), the respondent needed cash (16%), someone else needed subsistence food (16%), and the respondent had extra subsistence food (12%). Reasons people mentioned for trading that were not listed as an option on the survey were “unable to get on their own,” “low numbers of fish,” and “elders needed.” When asked about the most important reason for trading, Fort Yukon respondents reported that they needed food (44%) or cash (12%), and someone else needed something (not subsistence food, 12%; Table 2-15). Three respondents listed their own most important reasons for trading; these included “only way to get it,” and “low numbers of fish.” Fishers also reported that the increased demand for Chinook salmon, due to the fishing restrictions and scarcity, ensured a positive response if they asked for gas money (040115FYU2).

Ethnographic respondents explained that some people in Fort Yukon and neighboring communities need to buy wild food to meet their basic household needs. Sometimes a fisherman who is also a dog musher

Table 2-13.—Frequency of customary trade, reported by respondents who have ever traded, Fort Yukon.

Frequency	Number	Percentage ^a
More than once a year	10	40%
About once a year	6	24%
Less than once a year	6	24%
Almost never	1	4%
Not reported	2	8%

Source ADF&G Division of Subsistence household surveys, 2015.

a. Percentage of respondents who have ever traded.

Table 2.14.—Reasons for customary trade, reported by respondents who have ever traded, Fort Yukon.

Reason	Number	Percentage ^a
We needed subsistence food	13	52%
Someone else needed subsistence food	4	16%
We needed something (not subsistence food)	3	12%
Someone else needed something (not subsistence food)	7	28%
We had some extra subsistence food	3	12%
We needed extra cash	4	16%
Other reason ^b		
Unable to get on own	2	8%
Low numbers of fish	1	4%
Elders need	1	4%
Curious	1	4%

Source ADF&G Division of Subsistence household surveys, 2015.

Note Respondents could select more than one reason.

a. Percentage of respondents who have ever traded.

b. Reasons volunteered by respondents.

Table 2-15.—Most important reasons for customary trade, reported by respondents who have ever traded, Fort Yukon.

Reason	Number	Percentage ^a
We needed subsistence food	11	44%
We needed something (not subsistence food)	1	4%
Someone else needed something (not subsistence food)	3	12%
We had some extra subsistence food	1	4%
We needed something else (not subsistence food)	1	4%
Other reason ^b		
Only way to get it	1	4%
Low numbers of fish	1	4%
Curious	1	4%
Most important reason not reported	2	8%

Source ADF&G Division of Subsistence household surveys, 2015.

a. Percentage of respondents who have ever traded.

b. Reasons volunteered by respondents.

is unable to run his fish wheel for the summer because he is busy working a job or out of town during the fishing season. Regardless of his other obligations, he still needs large quantities of chum salmon to feed his dogs. For those who are unable to fish, purchasing a resource can be the simplest way to get what they need. Accepting cash for the fish is sometimes the simplest solution for fishers because it gives the fishers the ability to get exactly what they need. “I know some people would go and sell chum salmon...but then they would go to the AC [local store] and buy food and gas with it anyway” (040115FYU2). This respondent explains, “It’s just easier to have cash in your pocket.”

In a typical customary trade transaction a person unable to fish asks a successful fisher if he or she can buy some fish, “That’s how they would trade” (033115FYU3). The fisher would provide the other person with fish and in return, the fisher would get some gas money. He goes on to explain, “There’s no financial gain, it’s just to provide something, just to provide some Native food and in exchange, get some gas money.”

Other times a fisher or hunter planning to distribute his harvest might approach the people who will be receiving part of it and ask for gas money so he can go fishing or hunting (040115FYU2, 040115FYU3). The older relative will support the fisher or hunter financially so that he can afford to go moose hunting or fishing, and then the hunter will share his harvest with them. One respondent splits the costs of moose hunting with his hunting partner. Both hunting partners also rely on others helping them out with gas, oil, and other supplies. When they return from hunting, the respondent brings meat to those who helped him pay for his share of the costs of the trip.

A lot of older people need fish, they provide them [the fishers] with gas money and then they do give them fish...They buy the gas for them and then they [the fishers] go out and see the fish wheel, and then they give them [the older person] fish. Of course, there’s a lot of older people who have money and they can’t just go out and do it. (040115FYU7)

One fisher frequently gives fish to an older, retired friend, and sometimes the older man gives the fisher money. The fisher usually has to tell the older man that he needs money; if his older friend does not have the money, the fisher still gives his older friend the fish. “Give it to him anyway, I’ve got plenty [fish] and he’s got none. One month they may give you \$50 and the next month they might give you nothing” (040115FYU6).

Sometimes a fisher intends a transaction to be barter but it turns into customary trade. One respondent traveled to Fairbanks for a meeting with a relative from Old Crow. He brought some dried fish, hoping to barter for some dried meat. His relative did not have any dried meat, so he traded cash instead (040115FYU5).

One respondent explained that the exchange of cash for resources is considered providing:

Table 2-16.—Frequency of trading resources received in customary trade exchanges, Fort Yukon, 2014.

Frequency	Number	Percentage ^a
Never	17	68%
Rarely	1	4%
Not reported	7	28%

Source ADF&G Division of Subsistence household surveys, 2015.

a. Percentage of respondents who have ever traded.

Any time you do that, make any kind of trade of wild game, it's a favor. That's the way it is, no matter what kind of cash is involved. It's a favor, whoever received the meat, they know it's a favor. The cash has nothing to do with it. So what if they needed the cash, it's none of your business what they do with the cash. (040115FYU6)

Fort Yukon residents rarely participate as middlemen in trade transactions, by selling something they bought from someone else. Most (68%) of the survey participants who trade have never acted as a middleman, and 4% rarely act as a middleman in a trade exchange (Table 2-16).

Summary of Reported Customary Trade Transactions

Through the survey, a total of 20 trade transactions were reported by 14 of 64 participating households (Tables 2-2 and 2-17). A list of all customary trade transactions reported on the surveys can be found in Table 2-18. These households sold 1 to 3 times and bought 1 to 2 times during the study year (Table 2-19). Seventy-five percent of reported customary trade transactions were purchases made by the respondent (Table 2-17). More than 821 lb of wild food was exchanged for a total of \$1,265 (no amounts were reported for one transaction; Table C2-5, Table 2-18). Fort Yukon households reported 5 selling transactions and sold more than 359 lb of wild foods for \$180 (Table 2-18). The pounds of wild food sold ranged from 5 lb to 222 lb, and amounts were not reported for one transaction.

Responding households bought chum salmon most frequently during the study period (11 reported transactions by 9 households), followed by Chinook salmon (4 reported transactions by 4 households; Table C2-5; Figure 2-8). Chum salmon also made up the majority of resources bought by weight at 61% (498 lb)

Table 2-17.—Summary of reported customary trade transactions, Fort Yukon, 2014.

Number of reported customary trade transactions	20
Number of households reporting customary trade transactions	14

Buying transactions

Number of buying transactions	15
Percentage of all transactions	75%
Total amount spent in buying transactions	\$1,265.00
Range of amount per transaction	\$10 to \$400
Total weight of wild foods bought	821.4 lb
Range of weight per transaction	<1 lb to 299 lb
Percentage of buying transactions between Fort Yukon residents	67%

Selling transactions

Number of selling transactions	5
Percentage of all transactions	25%
Total amount received in selling transactions	\$180.00
Range of amount received per transaction	\$30 to \$100
Total weight of wild foods sold	359.2 lb
Range of weight per transaction	5 lb to 255 lb
Percentage of selling transactions between Fort Yukon residents	40%

Source ADF&G Division of Subsistence household surveys, 2015.

Table 2-18.—Reported customary trade transactions, Fort Yukon, 2014.

Resource	Processing	Amount	Units	Pounds	Price	Location		Exchange partner	
						Harvest	Transaction	Residence	Relationship to respondent
Buying transactions									
Chum salmon	Fresh, unprocessed	5	Individual	42.5	\$50	Fort Yukon	Fort Yukon	Fort Yukon	Friend
Chum salmon	Fresh, unprocessed	20	Individual	170.0	\$50	Fort Yukon	Fort Yukon	Fort Yukon	Friend
Chum salmon	Fresh, unprocessed	Not reported	Individual	Not reported	\$30	Fort Yukon	Fort Yukon	Fort Yukon	Friend
Chum salmon	Fresh, unprocessed	2	Individual	17.0	\$10	Fort Yukon	Fort Yukon	Fort Yukon	Friend
Chum salmon	Fresh, unprocessed	20	Individual	170.0	\$400	Fort Yukon	Fort Yukon	Fort Yukon	Friend
Chum salmon	Frozen, unprocessed	5	Individual	42.0	\$50	Fort Yukon	Fort Yukon	Fort Yukon	Friend
Chum salmon	Frozen, unprocessed	1	Individual	8.5	\$50	Circle	Fairbanks	Circle	Friend
Chum salmon	Dried Strips	5	Individual	31.9	\$50	Fort Yukon	Fort Yukon	Fort Yukon	Friend
Chum salmon	Strips	2	Pounds	1.0	\$60	Stevens Village	Fairbanks	Stevens Village	Friend
Chum salmon	Jarred, smoked	12	Pints	9.8	\$20	Fort Yukon	Fort Yukon	Fort Yukon	Friend
Chum salmon	Jarred, smoked	6	Half pints	4.9	\$120	Fort Yukon	Fort Yukon	Fort Yukon	Friend
Chinook salmon	Fresh, unprocessed	20	Individual	299.0	\$100	Fort Yukon	Fort Yukon	Fort Yukon	Friend
Chinook salmon	Strips	1	Gallons	4.8	\$50	Rampart	Fairbanks	Fairbanks	Friend
Chinook salmon	Strips	2	Plastic carrying bag (2-gal capacity)	19.2	\$200	Fort Yukon	Fairbanks	Other Alaska	Friend
Chinook salmon	Canned	1	Pints	0.8	\$25	Chitina	Fairbanks	Fairbanks	Nephew
Selling transactions									
Chum salmon	Fresh, unprocessed	10	Individual	85.0	\$50	Fort Yukon	Fort Yukon	Fort Yukon	Friend
Chum salmon	Fresh, unprocessed	30	Individual	255.0	\$30	Fort Yukon	Fort Yukon	Fort Yukon	Cousin
Chum salmon	Dried	3	Gallons	14.4	\$100	Fort Yukon	Fairbanks	Old Crow, Canada	Spouse
Chum salmon	Dried, smoked	1	Gallons	4.8	Not reported	Fort Yukon	Fairbanks	Old Crow, Canada	Extended family
Chum salmon	Dried, smoked	Not reported	Not reported	Not reported	Not reported	Fort Yukon	Fairbanks	Old Crow, Canada	Extended family

Source ADF&G household surveys, 2015

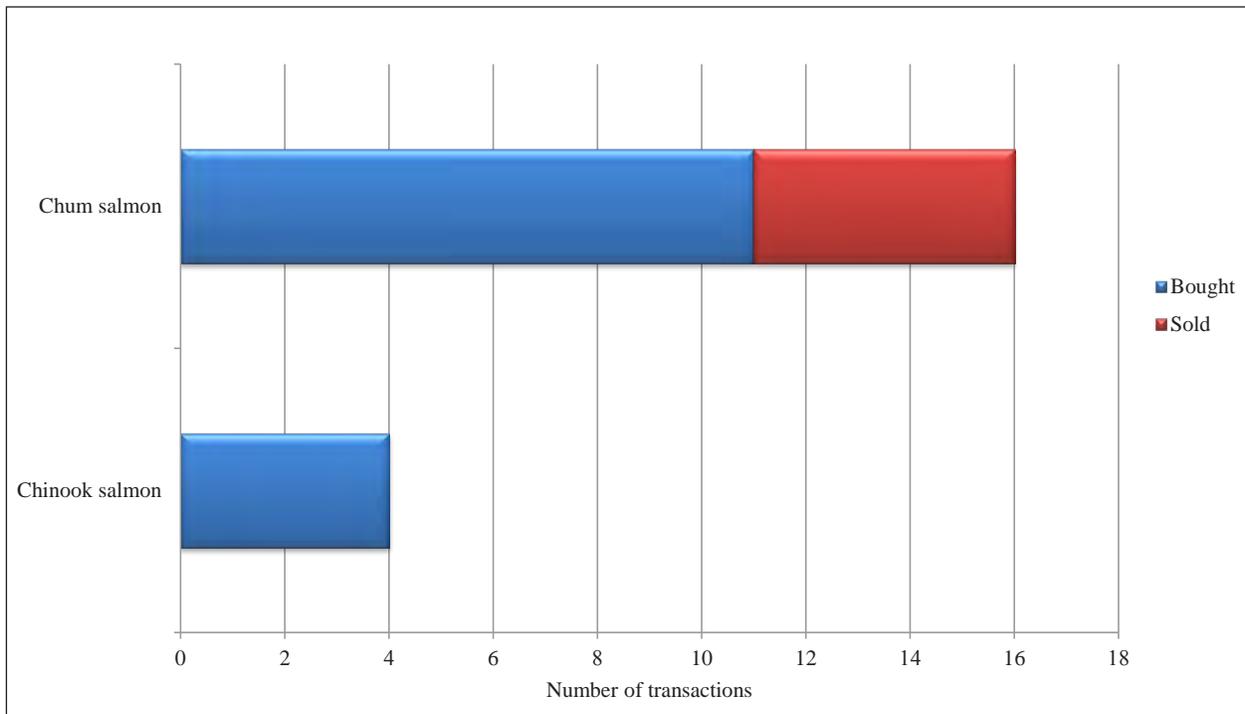


Figure 2-8.—Number of customary trade transactions by resource, Fort Yukon, 2014.

followed closely by Chinook salmon at 39% (324 lb; Figure 2-9). In 2014, most buying transactions involved fresh, unprocessed chum salmon followed by frozen, unprocessed chum salmon, jarred and smoked chum salmon, and Chinook salmon strips (Table 2-20). Three respondents reported selling chum salmon in 5 transactions during the study period (Table C2-5). Fort Yukon respondents reported selling smoked and fresh, unprocessed chum salmon in the highest number of transactions. Participating households did not report selling any Chinook salmon during the study period.

Ethnographic interview respondents reported that the items traded most frequently were fish (Chinook salmon and chum salmon; 033115FYU1, 033115FYU3, 040115FYU5, 040115FYU6) and moose (033115FYU1, 040115FYU7). One respondent reported that fish is exchanged because it is an important part of the diet of the people of Fort Yukon: “People need fish” (033115FYU1).

Additionally, according to one of the ethnographic interview respondents, people sell salmon processed more frequently than whole because processed fish is easier to transport (040115FYU2). “You can put 4 cases in a tote and put it on an airplane...strips don’t weigh much.” However, people reportedly have not been selling salmon that way for a couple of years because of the current lack of Chinook salmon.

Fort Yukon households reported conducting customary trade with other Fort Yukon residents and with residents of neighboring communities (Figure 2-9; Table C2-6). In Figure 2-7, the dashed green lines represent the flow of cash from the buyer to the seller, and the other dashed lines represent the flow of the resource purchased from the seller to the buyer. The width of these dotted lines corresponds to the number of times cash or a resource was exchanged between parties. Most of the buying transactions occurred within the community and between friends (67%; tables C2-6 and C2-7). Ten buying transactions took place in Fort Yukon with people who lived in Fort Yukon and with resources harvested around Fort Yukon (Table C2-6). The 5 other buying transactions all were conducted in Fairbanks with resources harvested in Circle, Chitina (Copper River), Rampart, and Stevens Village and with people from Circle, Fairbanks, Stevens Village, and an unnamed Alaska community.

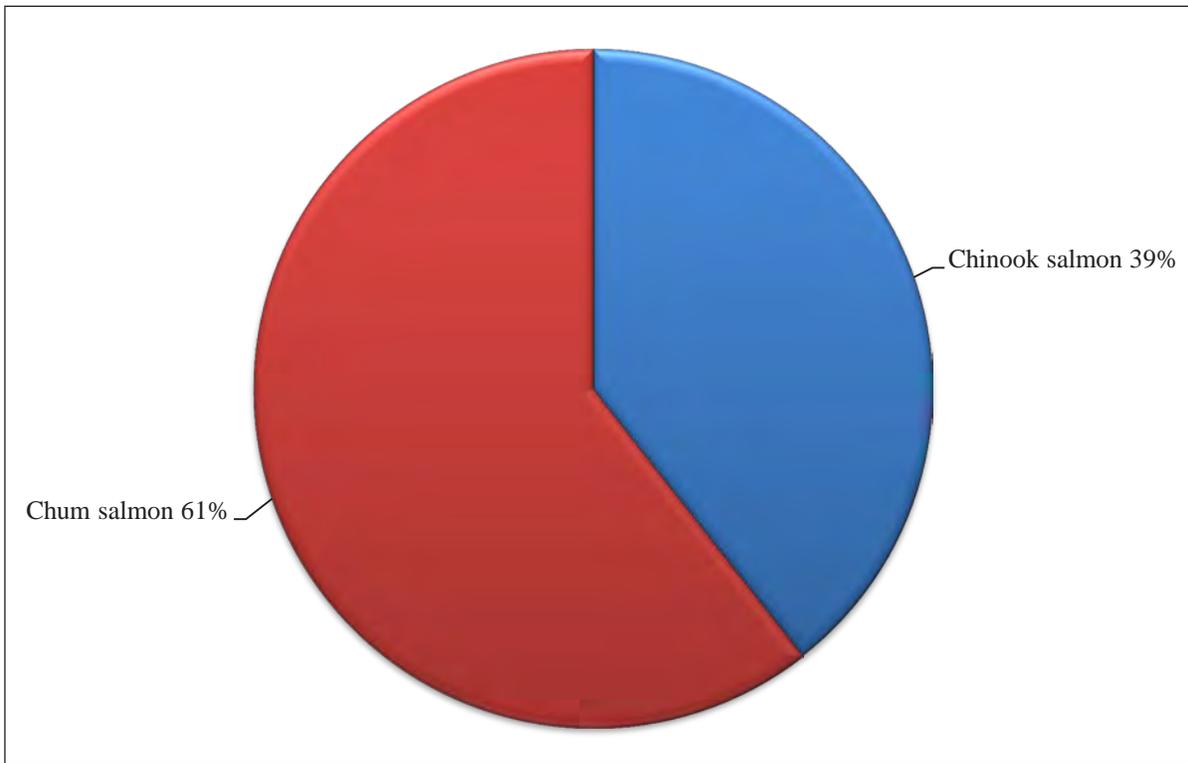


Figure 2-9.—Composition of wild resources bought in customary trade exchanges, Fort Yukon, 2014.

Three households reported a total of 5 selling transactions during this study period (tables 2-19 and C2-5). Although 3 of 5 selling transactions took place in Fairbanks, a single household conducted all 3 of the selling transactions that took place with people from Old Crow (Table C2-6). The remaining 2 selling transactions took place in Fort Yukon with other Fort Yukon residents.

An ethnographic interview participant explained that people from Fort Yukon sometimes buy caribou from people in Venetie or Arctic Village who ship the unprocessed meat to Fort Yukon so the recipients can dry it themselves (040115FYU2). Fort Yukon residents also buy fresh or dried moose or caribou locally: “I bought dry meat for \$50, a gallon Ziploc® bag full. That’s because I wanted to take it to a meeting and didn’t want to go thaw meat out and go home and make it for 3 days” (040115FYU2). Dried meat also sold at fundraisers for people with health issues, and the events can raise \$100 or more (040115FYU2).

The price of a resource can vary depending on what people have and how much people want something. The cost is sometimes dependent on gas prices (033115FYU1). Some respondents reported that the cost does not change or depend on who they are trading with (033115FYU3), while others stated that the price may be based on what people are willing to pay (040115FYU2, 040115FYU6). On occasion, some people negotiate over price with some of the people they trade with. One respondent reported that people often negotiate over prices (040115FYU5).

In an example of obtaining cash for fuel to enable subsistence activities, a Fort Yukon harvester reported that his mother would give him \$50 or \$100 and say, “Make sure you guys have enough gas” (040115FYU7). Another relative might give him something else if he asked or they might come to him and ask him if he needed anything. He might need gas or maybe oil and thus cash to buy the fuel.

Another respondent reported that the increased scarcity of Chinook salmon has increased its value (040115FYU2). Ten years ago a case of jarred fish was only worth \$50 and now it is worth \$400, so people are more motivated to process and sell salmon. Because of its scarcity, the value of Chinook salmon increased. “If you’re working, you’ve got a job, you’ve got money, you’ve got no time to fish, well then you must have the means to buy it” (040115FYU7).

Table 2-19.—Reported customary trade transactions at the household level, Fort Yukon, 2014.

Number of households reporting customary trade transactions	14
Percentage of surveyed households reporting customary trade transactions	22%
Average number of transactions per trading household	1.43
Range in number of transactions per trading household	1 to 3
Buying transactions	
Number of households reporting buying transactions	12
Number of buying transactions	15
Average number of buying transactions per buying household	1.25
Number of households buying from another community	5
Percentage of buying households buying from residents of another community	42%
Selling transactions	
Number of households reporting selling transactions	3
Number of selling transactions	5
Average number of selling transactions per selling household	1.67
Number of households selling to another community	1
Percentage of selling households selling to residents of another community	33%

Source ADF&G Division of Subsistence household surveys, 2015.

Table 2-20.—Reported processing of resources exchanged in customary trade transactions, Fort Yukon, 2014.

Resource processing	Number	
	Buying transactions	Selling transactions
Chum salmon		
Fresh, unprocessed	5	2
Frozen, unprocessed	2	
Dried	1	1
Strips	1	-
Dried, smoked	-	2
Jarred, smoked or other	2	-
Chinook salmon		
Fresh, unprocessed	1	-
Strips	2	-
Canned	1	-

Source ADF&G Division of Subsistence household surveys, 2015.

Some ethnographic interview respondents consider it okay to sell small quantities of salmon (which they considered to be valued between \$300 and \$400; 033115FYU2), but they felt that selling fish for thousands of dollars would not be acceptable (040115FYU6). However, these respondents reported that this does also occasionally occur in Fort Yukon.

CONCLUSION

Resources flow between people in Fort Yukon, and some people are not able meet their basic needs without sharing, buying, or bartering. These exchanges maintain social and kinship relationships, and they limit waste by distributing excess resources. Fort Yukon harvesters participate in this distribution system by providing wild resources for others and banking resources for themselves in the future. Respondents share or exchange resources because they know others need or desire high-quality wild food: “People acquire a taste for traditional foods...they actively go around to their relatives looking for a pot of moose meat soup, someone’s cooking moose or something” (040115FYU5). Recipients may give either money or goods in exchange.

Participants report that often exchanges start out as sharing but turn into barter or trade. “We share...but then in most cases people are just going to give you fish; they want something. You have to share back...that’s just the way it is” (033115FYU3). Barter exchanges are frequently initiated as sharing and unintentionally turned into barter transactions through delayed reciprocity.

Barter and customary trade both take place with some regularity, although not all Fort Yukon residents participate in them. Barter occurs slightly more frequently than customary trade (Table C2-8). Some households reported participating in barter only (19) or trade only (13), while 12 participated in both activities.

I think the barter system is more in use than the cash system, at least for me, but I know a lot of other people use the cash system because, like, I know my mom isn’t going to pump a drum of gas for somebody. She is going to give them some money and tell them, “Here, go to the gas station.” (040115FYU7)

Most barter transactions take place in Fort Yukon with locally harvested resources, but people do barter with people from other communities in the region. This gives them access to resources less available to them, such as caribou, and allows them to share the resources abundant in their area, such as salmon. Exchanging with neighboring communities can occur through delayed reciprocity.

Customary trade distributes resources and provides cash for subsistence activities. Most buying transactions took place with people in Fort Yukon, while most selling transactions took place in Fairbanks with people from neighboring communities.

This study took place during a period of very low Chinook salmon abundance, the most conservatively managed Chinook season, and the lowest harvest on record (Estenson et al. 2015). New fishing restrictions may have decreased reported exchanges of Chinook salmon for the study period, although some respondents reported that the scarcity of Chinook salmon increased its value and the demand for it.

ACKNOWLEDGEMENTS

This research would not have been possible without support and assistance from the Gwichyaa Zhee Gwich’in Tribal Council and its staff, local contacts, local research assistant Julie Mahler, key respondents, and community members who participated and shared their knowledge and experiences. The Tribal Council met more than once to discuss the project and offered suggestions in sensitively crafting the research design to support accurate documentation of their cultural practices. The research participants, both in the ethnographic interviews and the survey, shared important information about their experiences and practices. We thank the community of Fort Yukon for participating in this study. We also thank the Office of Subsistence Management and the Yukon River Regional Advisory Councils for funding this study through their Fisheries Resource Monitoring Program.

3. MANLEY HOT SPRINGS

Alida Trainor

COMMUNITY BACKGROUND

In February 2015, ADF&G researchers surveyed 25 of 51 households (49%) in Manley Hot Springs (Table 3-1). This chapter summarizes findings from the household surveys, including household members' participation in barter and customary trade and the local characteristics of these exchanges, and it details specific transactions from the study year related to the buying, selling, and barter of subsistence foods.

In addition to the household surveys, 5 ethnographic interviews were conducted with 7 knowledgeable residents: 2 married couples and 3 highly productive harvesters. All ethnographic respondents participated in the subsistence fishery, and most spent time commercial fishing for fall chum salmon in the late 1970s and 1980s or were involved in the commercial salmon roe fishery between 1974 and 1977. All ethnographic respondents have experience fishing for salmon with a set gillnet and a fish wheel. Fishing for dog teams occurred throughout the lives of most ethnographic respondents. Respondents described their experience exchanging salmon for food, services, and cash or sharing it with other community members. Together these respondents represent 238 years of fishing experience in the Tanana River and Yukon River region. These ethnographic interviews provide context for the quantitative data presented in this chapter. Findings from these interviews, historical background information, and conclusions from earlier research of customary trade in the Yukon River region are presented throughout this chapter.

Table 3-1.—Sample achievement and demographic characteristics, Manley Hot Springs.

Sample achievement¹	
Estimated households in community	56
Initial households in sample	56
Households moved or occupied by nonresident	5
Revised number of households in sample (survey goal)	51
Households surveyed	25
Households failed to be contacted	18
Households declined to be surveyed	8
Total households attempted to be surveyed	51
Refusal rate	24.2%
Percentage of sample surveyed	49.0%
Percentage of total households surveyed	49.0%
Demographics²	
Estimated population	80.0
Percentage Alaska Native	16.3%
Median household income	\$53,750.00
Per capita income	\$31,960.00

Source ¹ADF&G Division of Subsistence household surveys, 2015.

²US Census Bureau, American Community Survey 5-year estimates, 2010–2014.

Manley Hot Springs is located at the end of the Elliott Highway, approximately 160 road miles west of Fairbanks. The community is approximately 5 miles north of the Tanana River, and most residents live near the banks of Hot Springs Slough. The Alaska Department of Labor estimated that 118 people lived in Manley Hot Springs in 2014 (Table 3-1). At 65 degrees latitude, Manley Hot Springs experiences extreme temperature differences with exceptionally cold winters and warm summers typical of a continental climate.¹ A boreal forest surrounds the community and provides residents access to a variety of edible plants and land mammals. Hot Springs Slough, which runs through the community, is mostly ice-free due to spring-heated water from nearby Karshner Creek (Sattler and Jordan 1986).

The Alaska Department of Fish and Game, Division of Subsistence conducted a comprehensive subsistence survey to document the 2012 subsistence harvest and use patterns and economic profile of Manley Hot Springs (Brown et al. 2014). The Division of Subsistence estimated that 123 residents lived in 58 households in 2012. Unlike other rural communities, most of the population in Manley Hot Springs was born in either urban areas of Alaska or in other states. Only 5% of household heads were born in Manley Hot Springs. These demographic characteristics demonstrate the unique profile of a community on the road system. Manley Hot Springs has a history of incoming and outgoing residents who have traveled to the community for a variety of economic reasons including mining, trapping, logging, and both subsistence and commercial fishing. Jobs in Manley Hot Springs are limited. In 2012, half of the income earned by residents came from local government or construction jobs. Eighty-three percent of working age adults reported having some employment in 2012, resulting in a 17% unemployment rate. Of the jobs held by residents, 68% of them were full time.

Facilities in Manley Hot Springs include a public school, a health clinic, a washeteria, a post office, a small library, and the Manley Trading Post, which is open year round and sells groceries, gas, and liquor. A restaurant and bar open during summer months, and 2 public campgrounds are available for visitors.

Additionally, a private hot springs plays a central role within the social structure of the community. In 1955, Gladys Dart and her husband Chuck bought the thermal springs for which Manley Hot Springs is named. Shortly after purchase, the Darts converted the springs into highly productive greenhouses that grow vegetables and fruit. The greenhouses also function as bathhouses with several tubs of naturally heated water (Plate 3-1). Although the greenhouses and baths are privately owned, they have long been central to the community's barter network: local residents exchange wild foods or services for access to the baths.

This study seeks to contextualize the patterns of exchange; the reasons why people share, barter, or trade; and how they decide which type of exchange method to use. The results will illustrate the nuanced nature of the practice and will show that, for the most part, customary trade exists in relation to other forms of exchange including sharing and barter.



Plate 3-1.–Hot springs bath house.

1. Alaska Department of Commerce, Community, and Economic Development (ADCCED) Division of Community and Regional Affairs, Juneau. n.d. “Alaska Community Database Online: Community Information”. Accessed September 15, 2017. <http://commerce.alaska.gov/dcra/DCRAexternal>

History of Local Salmon Fishery

Athabascans of the lower Tanana River occupied the area surrounding Manley Hot Springs long before miners or trappers settled in the mid-1800s. The Athabascans who lived along the lower Tanana River from Kantishna River to the mouth of the Tanana River were part of the Koyukon language group, while those from the Tolovana River and nearby Minto Flats were part of the Lower Tanana language group (Andrews 1988:16). Bands of people in this area used the hills, creeks, extensive lake system, the Tanana River, and the numerous sloughs for subsistence activities including hunting, fishing, trapping, and gathering vegetation throughout the year. They also moved seasonally to camp near productive areas (Betts 1997:86). In the past, Native peoples of the area used the local hot springs for which the community is named, which they considered a place of healing.

Very little contact occurred between the Lower Tanana Athabascans and Euroamericans prior to 1900, but in 1899 gold was discovered on Eureka and Pioneer creeks, and contact rapidly increased (Orth 1971rep.:321). In the years that followed, a surge of miners arrived and began prospecting in the creeks in the hills north of present day Manley Hot Springs. With only a few exceptions, Native individuals were formally excluded from prospecting or mining (L'Ecuyer 1997:5). Instead, they sold or bartered chopped wood, meat, and fish, particularly for trade goods (Hunt 1990:176).

In 1902, a miner named John Karshner established a 278-acre homestead after taking an interest in the hot springs (Betts 1997:87). Karshner's homestead quickly became a supply center for miners and a docking place for the numerous steamers and barges traveling up the Tanana River. In the early 1900s, Manley Hot Springs experienced a population expansion associated with increased mining activity; the establishment of Fort Gibbons at present day Tanana, which created a more accessible market for local trappers to sell their furs; and the construction of the U.S. Army telegraph station. Gold mining activity and the local population both declined during World War I, but trappers, woodcutters, and miners once again began using Manley Hot Springs as a home base in the 1920s. Once again, the local economy thrived as Native and non-Native people sold dried fish and furs to trading posts in the Yukon-Tanana river region, including the trading post at Tanana, and cut wood for the steamboats passing by in the summer months. A long time Manley Hot Springs resident described this time period during an ethnographic interview:

Traditionally, people had huge smokehouses. One thousand pounds wouldn't have been anything, and...back in the '30s or something...large amounts of dog fish were put up for sale, and that's all gone away. People used to have these huge smokehouses so it [was once] at a greater scale than in recent years. You know, it was one of the traditions. I mean, it's what people did on the river. You cut wood for the steamboats, or...you worked with the fishery, any way you could sell a fish. (02062015MHS5)

The demand for furs in the mid-20th century required trappers in the Yukon-Tanana river region to improve their mode of transportation by building or expanding their dog teams. With the use of dog teams for trapping, the need for dog food, primarily salmon, increased (Andersen 1992:5). In order to fish more efficiently, many fishers began using the highly effective fish wheel (Plate 3-2), a gear type introduced to the region by Euroamericans in the first decade of the 20th century (Hosley 1981). Fish wheels made it easier to catch the large amount of fish needed for dog teams without having to compete for use of limited eddies, and they were often more efficient than set gillnets. The increased efficiency offered by fish wheels also made it possible to harvest a surplus of fish to barter or sell for small amounts of cash.

Commercial fishing has also played an important historical role in Manley Hot Springs. In the late 1970s through 1990s, a fish processing plant operated in Manley Hot Springs. Yutana Fish Processors was owned by William Thomas Taylor, a local resident who bought salmon from fishermen in Yukon River districts 4, 5, and 6. Fresh and frozen Chinook, chum, and coho salmon were bought and sold in addition to the roe of these fish (Bergstrom et al. 2001). Fish were either flown to Manley Hot Springs from neighboring communities, bought directly from fish camps, or delivered directly to the plant by individual fishermen. Yutana Fish Processors also operated a small roe-buying station in the community of Kaltag. During this

time, commercial fishing contributed significantly to the local economies of middle and upper Yukon River communities. An ethnographic respondent for this study described how the introduction of a very lucrative roe fishery temporarily increased the number of fishers in the middle and upper Yukon River area:

Here was a commercial fish plant, or a couple of them going here in Manley for a while and the eggs are the more valuable product here. You know, I guess they are top of the line. They're just what the buyers want. And of course, you know the fish plant they have to do something with the fish too, which they usually did. So, the way the whole thing started, of course, other people were subsistence fishing at the same time and they weren't allowed to sell their eggs. Now I know a lot of them were getting, you know they were sneaking them in and stuff, but, but so they figured well it's a shame these people have to throw these eggs away, why don't you make it where they can sell the eggs. But of course, you know, you're talking a lot of money. You know, thousands and thousands of dollars, so everybody started fishing. People that had never fished before, even people like us that did have a dog team, I mean, I didn't, my wife did, we're cutting way more than you would have if you know, if there, if the eggs sales weren't [happening]. (02062015MHS5)

By the late 1990s, salmon markets², throughout the entire upper Yukon River had declined. In 1996, the commercial roe fishery ended. As a result, many commercial fishers in the area registered as catcher-sellers with ADF&G (Holder and Senecal-Albrecht 1998). This designation enabled them to participate in commercial fishing opportunities and sell all or a portion of their catch directly to local consumers such as dog mushers or restaurant owners. Over time however, the number of fishers who sell fish through catcher-seller permits has declined and the vibrant commercial fishery that existed in Manley Hot Springs in the 1980s and 1990s no longer exists. However, the historical practice of customary trade continues.



Plate 3-2.—Fish wheel at Manley Hot Springs.

Figure 3-1 and Appendix Table C3-1 show the subsistence salmon harvest by Manley Hot Springs residents over time. Salmon harvests were highest in the late 1980s and mid-1990s and declined dramatically in the early 2000s. The most dramatic decline of fall chum and coho salmon occurred in 1993 when the fall chum salmon run did not return as predicted, and subsistence fishing opportunity was substantially reduced by regulatory action. Closures to fall chum salmon fishing also reduced the opportunity to catch coho salmon (Holder 1998). Cumulative harvests dropped from 36,853 salmon in 1990 to 2,478 salmon in 2000. Each of the 4 available types of salmon experienced a decline in harvest over time, but fall chum salmon, once a valuable commercial commodity, had the most severe declines resulting from the extremely low abundance in the 1990s and the failure of the fall chum commercial fishery in the upper Yukon River. Historically, fall chum salmon accounted for the majority of salmon harvests by Manley Hot Spring residents. In 1990, for example, 25,860 fall chum salmon made up 70% of the total salmon harvest. In 2000, subsistence fishermen on the Yukon River experienced disastrous returns of Chinook

2. “Markets” refers to both the fall chum salmon roe fishery and the commercial buying of fall chum and coho salmon for further processing.

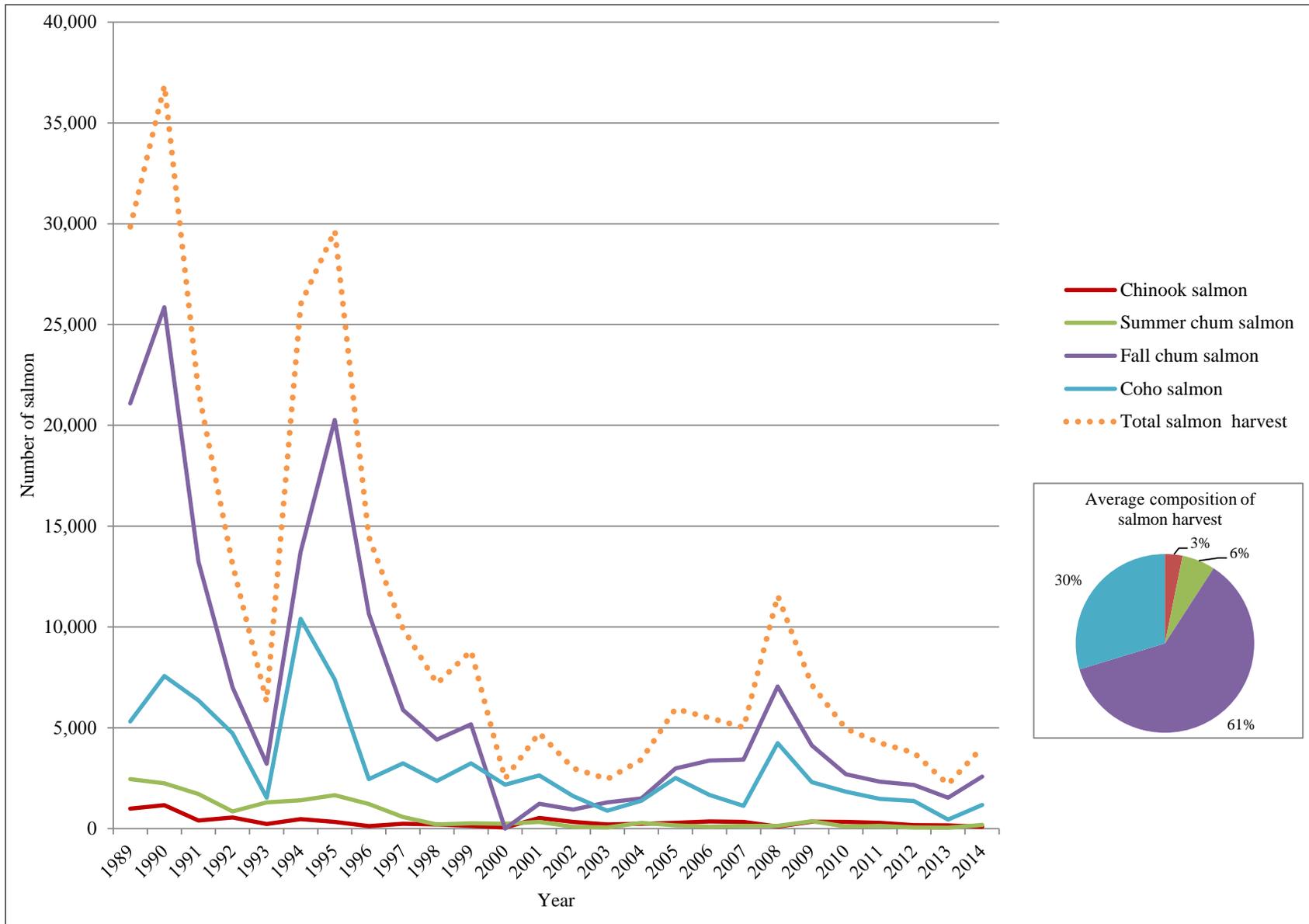


Figure 3-1.—Salmon harvests and composition of salmon harvests, by number, Manley Hot Springs, 1990–2014.

and summer and fall chum salmon. The weak returns resulted in unprecedented restrictions to personal, sport, commercial, and subsistence fishing openings, ultimately resulting in an 80% reduction in fishing opportunity in most districts (Borba and Hamner 2001). Upper Yukon River fishers who relied heavily on fall chum salmon to feed their dog teams sought assistance from nonprofit entities like the Tanana Chiefs Conference or organized local volunteer groups to help pay for commercially bought dog food (Borba and Hamner 2001:27). The nonprofit organizations and volunteer groups shipped dog food to 43 Yukon River communities, and many dog mushers evaluated the sustainability of keeping large kennels during years of low salmon abundance. Some made the choice to reduce the size of their kennels or phase them out over time.

The salmon fishery in which Manley Hot Springs residents participate has changed over time but has always included a component of selling fish. The reduction in commercial fishing in the upper Yukon River coincided with declines in dog teams and in Chinook salmon abundance. Although these shifts decreased the harvest of salmon by Manley Hot Spring residents, the sale of small amounts of fish continued through the practice of customary trade.

Contemporary Salmon Fishing Profile

Manley Hot Springs is located on the lower Tanana River, approximately 67 miles from the confluence with the Yukon River.³ In this area, the Tanana River is characterized by slow-moving water and wide channels. Large islands are scattered through the Tanana River near Manley Hot Springs. The river creates some eddies suitable for set gillnets and is deep enough in places to allow for the use of fish wheels. Depending on water level, the river occasionally carries large amounts of debris, locally known as drift or driftwood. During fishing season, heavy debris can damage fishing gear; fishers must monitor the amount of debris in order to protect their gear. An ethnographic respondent described local fishing conditions during an interview:

I don't go over on the Yukon anymore and most of the fishing I do around Manley. There are always spots that change as far as where you can put a net and where you can't. Some of that changes and also wheel spots change but the majority of the time you can use the same spots. The hard part around here is that there are only so many good spots especially with nets. That's why I think a lot of people around here don't fish, because there's not that many places to go. (02042015MHS3)

Salmon fishing occurs during the summer months of June, July, and August. By mid-June, Yukon River Chinook salmon reach the Rapids, an area upstream from the community of Tanana and a once-popular fishing location for Manley Hot Springs residents. Other residents choose to fish for Chinook salmon closer to the community on the Tanana River, which serves as a terminal fishery for summer chum salmon. Residents along the Tanana River rarely eat summer chum salmon because of their deteriorating quality as the fish near their spawning grounds. The flesh of the fish is typically pale in color, is low in oil content, and can have a mealy texture. As a result, summer chum salmon are often fed to dogs. Fall chum salmon arrive near Manley Hot Springs between late July and September when their condition is better than the summer chum salmon, and provide food for both humans and dogs.

Residents of Manley Hot Springs consider a variety of factors when deciding whether to fish with a set gillnet or a fish wheel during salmon season. Unlike fish nets that are bought commercially, fish wheels take time and effort to construct. At the beginning of each fishing season, fish wheels are carefully placed in the water and towed to the fishing location. This process is tedious and can damage the fish wheels if done incorrectly. However, once the fish wheels are in place, the large rotating baskets scoop fish out of the water and drop them into a holding box without much oversight from fishers. When the wheels are in operation, fishers can easily remove fish from the box and toss them into their boat. Fish wheels are more resistant to damage by debris than nets, which can take hours to reset if they are tangled with debris. The time saved by not having to pick through a net makes fish wheels appealing for individuals who need a lot of fish.

3. ADF&G. 2017. "Recreational Boating Access Projects: Interior Projects, Manley Hot Springs." Accessed September 15, 2017. <http://www.adfg.alaska.gov/index.cfm?adfg=fishingSportBoatingAccess.main>

Setnets are useful gear when a fisher has access to an eddy. An eddy is a place in the river where an obstruction changes the flow of the water and creates a backwards swirl. Fish use eddies as resting places, which makes them excellent places to set a net. However, respondents agreed that there are limited eddies and setnet locations near Manley Hot Springs, and as a result, the number of fishers who can use setnets is also limited (02042015MHS2, 02042015MHS3, 02062015MHS5). One respondent explained that, “we have our spots and we protect them, because even though they aren’t very good, when the drift isn’t running, they are good spots if the water is just right. It is our spot and there aren’t that many spots around Manley Hot Springs to fish [with] a net” (02042015MHS2).

Residents of Manley Hot Springs maintain what a key respondent called a “gentleman’s agreement” when considering fishing locations (02062015MHS5). Although no one legally owns a setnet or fish wheel site, if a site has been used by one person in the past, others will avoid it even if the site has been unused for years. Current fishers may ask for permission from the prior fishers before setting a net or wheel in that location. A site might be “given” to another individual in exchange for some of the harvest or an agreement that the site will eventually be returned to the prior “owner.” In this way, fishing sites become part of the sharing and exchange networks within the community.

In 2013 the ADF&G Division of Subsistence conducted a comprehensive subsistence survey in Manley Hot Springs to explore the harvest and use patterns of all wild foods by residents (Brown et al. 2014). The use of salmon in 2012 was almost ubiquitous: 93% of households used salmon. However, only 34% of households attempted to harvest salmon, and even fewer households successfully caught them (27%). The low rate of participation in the subsistence salmon fishery and the discrepancy between those households that tried to fish and those that were successful is consistent with the ethnographic characterization of the fishery gathered during this study. Viable fishing locations are limited near Manley Hot Springs, and salmon fishing is a laborious, high-cost activity. Despite the low percentage of households who catch salmon, nearly all households use the resource, illustrating the widespread practice of exchanging salmon with other residents.

In the 2015 survey, respondents were asked to consider which resources are bartered, sold for cash or bought with cash in Manley Hot Springs most often and how those resources were processed (Table 3-2). Of the 20 responses, 17 respondents indicated that fish was the most commonly exchanged resource category (85%). Nine of these respondents identified salmon as the most commonly exchanged resource; however, the broader category of “fish” likely includes salmon as well. Respondents were also asked how commonly traded resources are typically processed. Popular methods included jarring fish, a method of preservation that typically requires a pressure cooker. The fish can be smoked, dried, or seasoned prior to sealing. Once it is sealed, jarred fish can keep for months or even years. Some respondents did indicate that exchanging whole, unprocessed salmon was a common practice in Manley Hot Springs. Berries and wood were the only other resources listed as the most commonly exchanged resources.

BARTER

Local Characterization of Barter

Respondents agreed that the terms “barter” and “customary trade” are never used in the community (02062016MHS4; 02062015MHS1; 02062015MHS5). Instead, “trade” is a general term most commonly used when exchanging a subsistence food for something other than cash. One respondent explained that, “in general, ‘giving [food] away’ or ‘trade’ would be the word. Nobody would use the word ‘barter.’ That is too highfalutin’. I mean, yeah, I’ll trade you a king [salmon] for a bucket of berries, but it’s not formalized” (02062015MHS5).

Table 3-2.—Resources considered to be exchanged most often, Manley Hot Springs.

Resource	Responses
Chinook salmon	
Dried	1
Strips	2
Jarred, smoked or other	1
Unknown to respondent	1
Unspecified salmon	
Fresh, unprocessed	1
Jarred	3
Unspecified fish	
Fresh, unprocessed	3
Dried, smoked	1
Jarred	4
Berries	
Frozen, unprocessed	1
Jam	1
Wood	
Split and dried	1

Source ADF&G Division of Subsistence household surveys, 2015.

Note 20 of 25 respondents provided a response.

Table 3-3.—Participation in barter, Manley Hot Springs.

All respondents	
Number of respondents who have ever bartered	13
Percentage of respondents who have ever bartered	52.0%
Respondents who barter	
Average number of years since first barter	25
Range of years since first barter	5 to 44
Average number of reasons for bartering reported	3

Source ADF&G Division of Subsistence household surveys, 2015.

The casual nature of barter was explained by one respondent who believed that exchanging foods is rarely planned and can happen “without even knowing it.” The respondent described how a couple of salmon can be exchanged for “moose steaks, groceries, a bag of berries or whatever you know? You know, because there’s a lot more different food that I can give than just moose meat or fish. I give beaver meat, or rabbit, [or] spruce hen,” and the exchange can happen quickly, often by chance between 2 passing people (02062015MHS4).

Participation in Barter

The flow of food throughout Manley Hot Springs is continuous. Services, including labor, as well as gas and other goods are regularly exchanged for subsistence foods. The distinctions between sharing, barter, and the sale of subsistence foods, particularly salmon, are unclear in a place where social ties are strong between individuals. Table 3-3 shows the level of participation in barter. More than half of respondents (52%) reported participating in barter. For these respondents, bartering is a long-standing practice in their lives. On average, respondents reported that their first barter occurred 25 years ago, and at least one individual began bartering over 40 years ago. In the course of describing local norms associated with the exchange of subsistence foods, ethnographic respondents also explained why the legal distinctions between barter and customary trade do not accurately characterize the local nature of exchanges. Bartering salmon in Manley Hot Springs is widespread and occurs throughout the year for a variety of reasons. Salmon is a valuable commodity in Interior Alaska subsistence economies, especially in places like Manley Hot Springs where jobs are limited and the cash economy is less vibrant than in urban areas. One respondent described how exchanging salmon is second nature in her household, “a lot of fish goes through my household. I don’t sell it, but you’re bargaining it all the time without even knowing it” (02042015MHS2).

Table 3-4 lists the reasons that survey respondents barter.⁴ Respondents could select more than one explanation for participating in barter and could offer additional reasons if necessary. Ten respondents cited having extra subsistence food as a motivational factor for participating in barter. The same number reported that knowing someone else needed subsistence food was a reason to barter. Slightly fewer (8) considered their own need for subsistence foods as a reason to barter. One respondent indicated bartering in order to prevent the waste of subsistence food. The survey did not specifically ask about waste as a motivation to barter, but this respondent identified it as an important reason. Survey respondents offered additional context for why they bartered. One survey respondent explained that needing wild foods is “part of the culture” and bartering with others is a way to “look out for other people.” When asked to select the single most important reason for barter, the personal need for food or knowing that someone else needed food were the strongest motivations (Table 3-5). Ethnographic respondents discussed the desire to reciprocate a kind gesture. For example, a barter transaction might start out with one person simply sharing wild foods with another person. A respondent explained that the recipient “is [often] nice enough to want to reciprocate and of course you take it because, well, thanks! But it wasn’t a set up deal where I’ll trade you 2 king salmon for a bag of potatoes. I don’t think I’ve ever done that” (02062015MHS5). In the context of this community

4. This section of the survey referred to general participation in barter; responses do not necessarily reflect the study year.

Table 3-4.—Reasons for bartering, reported by respondents who have ever bartered, Manley Hot Springs.

Reason	Number	Percentage ^a
We needed subsistence food	8	62%
Someone else needed subsistence food	10	77%
We needed something (not subsistence food)	5	38%
Someone else needed something (not subsistence food)	5	38%
We had some extra subsistence food	10	77%
Other reason ^b		
To prevent waste	1	8%

Source ADF&G Division of Subsistence household surveys, 2015.

Note Respondents could select more than one reason.

a. Percentage of respondents who have ever bartered.

b. Reasons volunteered by respondents.

Table 3-5.—Most important reasons for bartering, reported by respondents who have ever bartered, Manley Hot Springs.

Reason	Number	Percentage ^a
We needed subsistence food	4	31%
Someone else needed subsistence food	4	31%
We needed something else (not subsistence food)	1	8%
We had some extra subsistence food	2	15%
Most important reason not reported	1	8%
Other reason ^b		
No money	1	8%

Source ADF&G Division of Subsistence household surveys, 2015.

a. Percentage of respondents who have ever bartered.

b. Reasons volunteered by respondents.

barter never involved bargaining or haggling. Instead, wanting to give back in equal measure motivates residents and perpetuates the culture of exchange beyond simply sharing.

Ethnographic respondents gave examples of who they barter fish with and what they receive in return. One respondent described giving 10 to 15 Chinook salmon to a vehicle inspector in exchange for a waived annual inspection fee (02062015MHS5). Bartering also occurs between individuals who have an excess of one good and are in need of another. Because exchanges occur between individuals with unique needs, the quantities of the goods exchanged vary. When asked what a fair barter would be for a salmon, a respondent illustrated why quantifying a “fair” barter is difficult: “That is hard to say. I provided other people with fish, they provided me with moose. Everybody figured out that we [were] both making a good deal, and everybody is happy, and we are still friends over the years” (02062015MHS1).

Respondents reported varied barter frequency. Sixty-nine percent of respondents said they barter more than once a year (Table 3-6). The remaining 4 respondents reported bartering either once a year or less than once a year. In general, barter happens throughout the year and is a long-standing part of the culture in Manley Hot Springs.

Table 3-7 reports the frequency that respondents reported acting as a “middleman” in barter exchanges. A middleman refers to a person who receives a bartered resource and then barter that same resource to a third party. Ten of thirteen respondents (77%) rarely or never acted as a middleman. This suggests that bartered resources in Manley Hot Springs are exchanged during isolated interactions and are not part of a broader distribution network.

Table 3-6.—Frequency of bartering, reported by respondents who have ever bartered, Manley Hot Springs.

Frequency	Number	Percentage ^a
More than once a year	9	69%
About once a year	2	15%
Less than once a year	2	15%

Source ADF&G Division of Subsistence household surveys, 2015.

Table 3-7.—Frequency of bartering a resource received in barter, reported by respondents who have ever bartered, Manley Hot Springs.

Frequency	Number	Percentage ^a
Never	4	31%
Rarely	6	46%
Often	3	23%

Source ADF&G Division of Subsistence household surveys, 2015.

a. Percentage of respondents who have ever bartered.

Summary of Reported Barter Transactions

Survey respondents were asked to identify and describe actual barter transactions that occurred within the last 12 months. Table 3-8 lists every reported barter transaction. Nearly half (40%) of surveyed households bartered either a wild resource or a market resource in the last 12 months (Table 3-9). No household reported bartering more than twice during the study year. Twenty percent of responding households who bartered exchanged resources with someone in another community. Table 3-10 summarizes the actual barter transactions in which respondents were involved. Eighty-three percent of the reported transactions occurred within the community, which demonstrates the localized nature of barter in Manley Hot Springs. Ethnographic respondents gave numerous examples of local barter, such as subsistence fishing for Chinook salmon so they would have a valued commodity to barter during moose hunting season. “I’d put up filets when the kings were running, and I’d trade a couple filets for some moose meat because I don’t need a whole moose. A couple of [moose] steaks or a couple packages of hamburger, maybe a roast” is a fair exchange for Chinook salmon filets (02062015MHS1). In the last year, survey respondents gave away 72 lb of wild foods and received 1,041 lb in exchanges they described as barter. Imbalances in barter exchanges demonstrate the complexity of the value based decision making that occurs in these types of exchanges. Social relationships and the value added to processed resources can make imbalances more pronounced. Additionally, 2 cords of wood were given in exchange for 2 hours of labor. Market resources such as

Table 3-8.—Reported barter transactions, Manley Hot Springs, 2014.

Giving							Receiving					Exchange partner		
Resource	Processing	Amount	Units	Pounds	Monetary value	Harvest location	Resource	Amount	Units	Pounds	Monetary value	Transaction Location	Residence	Relationship to respondent
Chinook salmon	Not reported	Not reported	Not reported	-	-	Manley Hot Springs	Labor	Not reported	Hours	-	-	Tanana	Minto	Friend
Unspecified salmon	Fresh, unprocessed	1	Individual	10.3	-	Manley Hot Springs	Groceries	1	Pound	-	\$5	Manley Hot Springs	Manley Hot Springs	Friend
Unspecified salmon	Frozen, unprocessed	3	Individual	30.9	-	Manley Hot Springs	Berries	2	Half pints	0.8	-	Manley Hot Springs	Manley Hot Springs	Friend
Unspecified salmon	Canned	12	Half pints	4.9	-	Manley Hot Springs	Labor	Not reported	Hours	-	-	Manley Hot Springs	Manley Hot Springs	Friend
Unspecified salmon	Jarred, smoked	1	Pound	1.0	-	Manley Hot Springs	Berries	1	Gallon	4.0	-	Manley Hot Springs	Manley Hot Springs	Friend
Moose	Dried, smoked	1	Pound	1.0	-	Not reported	Berries	1	Gallon	4.0	-	Fairbanks	Fairbanks	Friend
Berries	Fresh, unprocessed	4	Gallons	16.0	-	Manley Hot Springs	Moose	Not reported	Not reported	-	-	Manley Hot Springs	Manley Hot Springs	Friend
Berries	Fresh, unprocessed	2	Gallons	8.0	-	Manley Hot Springs	Moose	2	Pounds	2.0	-	Manley Hot Springs	Manley Hot Springs	Friend
Use of fishing location	N/A	N/A	N/A	-	-	N/A	Labor	Not reported	Hours	-	-	Tanana	Manley Hot Springs	Friend
Groceries	N/A	2	Pounds	-	\$10.00	N/A	Unspecified fish	Not reported	Not reported	-	-	Manley Hot Springs	Manley Hot Springs	Friend
Labor	N/A	8	Hours	-	-	N/A	Unspecified fish	100	Individual	1,030.0	-	Manley Hot Springs	Manley Hot Springs	Friend
Wood	Split, dried	2	Cords	-	-	Manley Hot Springs	Labor	2	Hours	-	-	Manley Hot Springs	Manley Hot Springs	Friend

Source ADF&G household surveys, 2015.

Table 3.9.—Reported barter transactions at the household level, Manley Hot Springs, 2014.

Number of households reporting barter transactions	10
Percentage of surveyed households reporting barter transactions	40%
Number of households bartering with other communities	2
Percentage of bartering households exchanging with another community	20%
Average number of barter exchanges per bartering household	1.20
Range in number of exchanges per bartering household	1 to 2

Source ADF&G Division of Subsistence household surveys, 2015.

Summary of reported barter transactions, Manley Hot Springs, 2014.

Total number of barter transactions reported	12
Number of households that reported barter transactions	10
Percentage of barter transactions between Manley Hot Springs residents	83%
Resources given	
Total weight of edible resources given	72 lb
Total amount of wood given	2 cords
Total value market resources given	\$10
Resources received	
Total weight of wild foods received	1041 lb
Total amount of wood received	0
Total value market resources received	\$5

Source ADF&G Division of Subsistence household surveys, 2015.

groceries were exchanged in very small amounts for wild food. For example, \$10-worth of groceries was given away in exchange for 100 fish. In another barter transaction, 1 fresh salmon was bartered for \$5 of groceries (Table 3-8). Although these 2 transactions involved the same resources, the difference of scale between the numbers of fish bartered demonstrates the vast variability within the local bartering culture. The decision to barter, which resources, in what quantity, to whom, how often, whether to plan for barter activities or to participate randomly is complex and differs from one transaction to the next.

Figure 3-2 shows the frequency that different resources were given and received. Salmon was given away more often than any other resource in a barter transaction (5 reported instances).⁵ Overall, berries and salmon were the most commonly bartered wild resources. Respondents reported bartering berries and salmon 5 times during the study year. Although respondents reported both giving (2 instances) and receiving (3 instances) berries, respondents only identified instances in which they gave salmon away (5 instances). Of the reported 24 instances of barter, 5 of those involved an exchange of labor (21%). More respondents recalled receiving labor during a barter exchange (4 instances) than those that recalled giving labor (1 instance) for another resource. A visual representation of the barter network in Manley Hot Springs is presented in Figure 3-3. Labor and salmon appear in the center of the figure and were both connected to other wild foods, market resources, and each other, demonstrating their central role in the local barter economy.

Salmon and berries were the wild foods most often given away, and fish and moose were the most commonly received wild resources (Figure 3-2). Several respondents reported that they received labor in exchange for another resource. However, the majority of barter exchanges involved wild foods. Fifteen of the 24 reported exchanges involved wild foods (63%), but nonedible and market resources were also exchanged. For example, store-bought groceries were both given and received by participants.

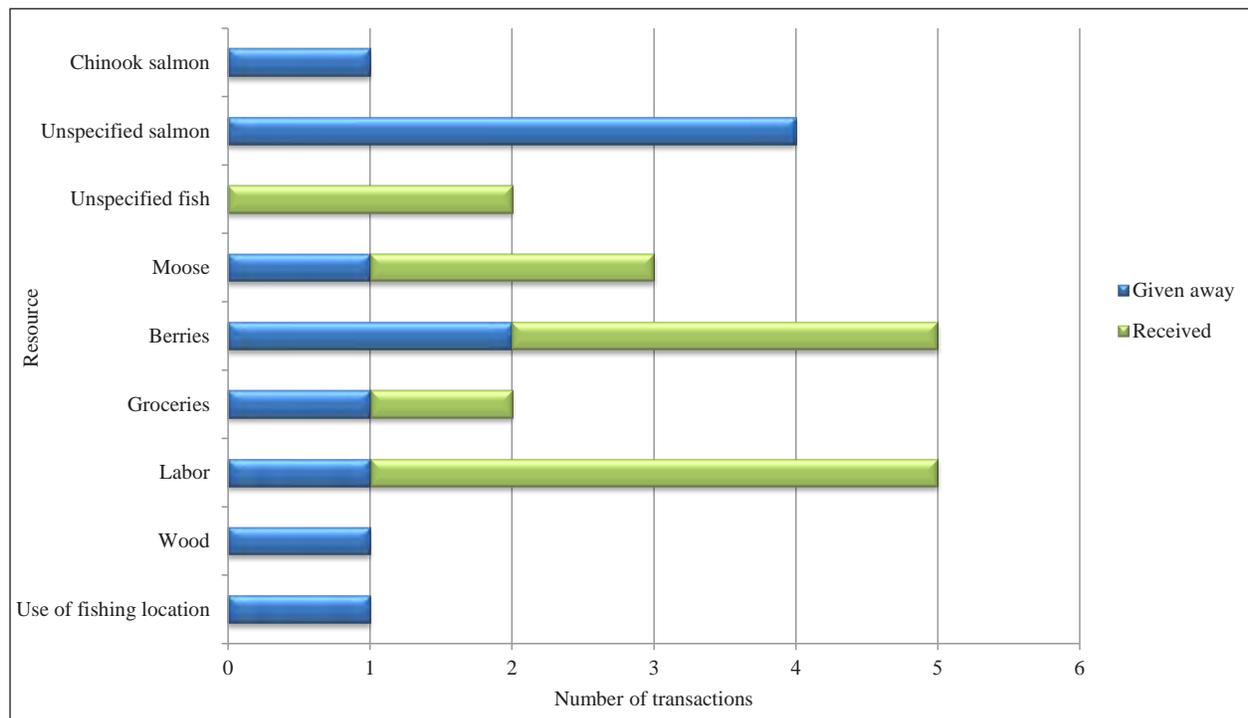


Figure 3-2.—Number of reported barter transactions by resource, Manley Hot Springs, 2014.

5. Some survey respondents did not specify what type of salmon they were exchanging. One respondent did list Chinook salmon, so it appears separately from the unspecified salmon category. Others used the term “fish” more generally. Locally, salmon is often the implied species when discussing fish, but this survey is unable to determine whether respondents meant salmon when they reported bartering fish.

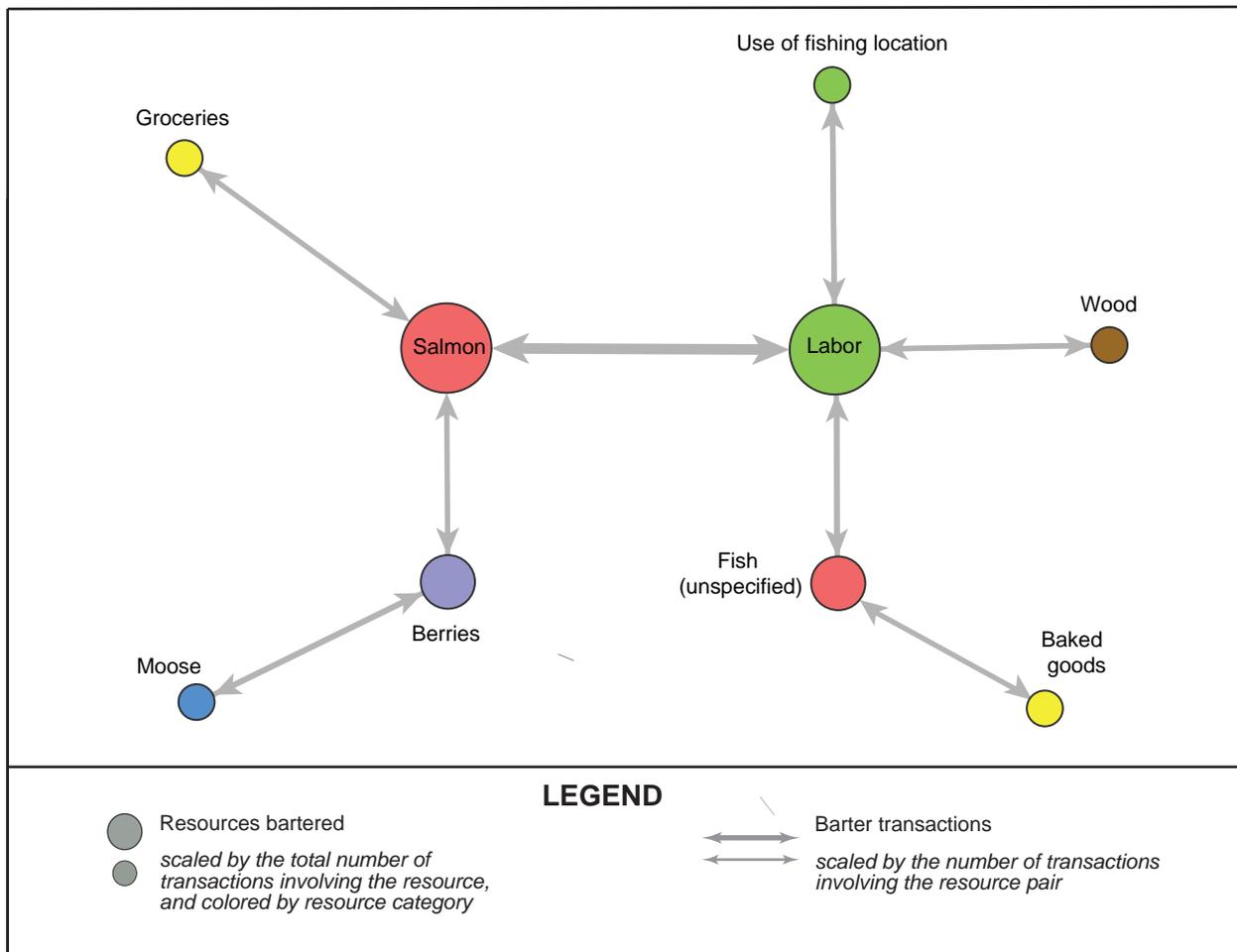


Figure 3-3.—Network of resources exchanged in barter transactions, Manley Hot Springs, 2014.

Figures 3-4 and 3-5 show the composition of resources given and received during barter exchanges by weight. Nonedible resources, including services, wood, and groceries are not represented in the figures but are included in Appendix Table C3-2. A total of 1,113 edible pounds were bartered during the study year (Table C3-2).⁶ The majority of the bartered wild food was fish⁷ (97%) exchanged during a single transaction. During this exchange, 8 hours of labor was given in exchange for 100 fish (1,030 lb)⁸. This transaction occurred between friends who both lived in Manley Hot Springs. Many survey respondents chose not to specify what type of fish was exchanged. However, it is likely that a portion of the bartered fish was salmon, a primary subsistence resource for Manley Hot Spring residents. Respondents did specify that 47 lb of salmon were given away during the study year.

Table 3-11 lists the ways given resources were processed. Salmon, the resource most often given away, was exchanged either in canning jars or given away whole. Berries, given away twice by survey respondents, were given unprocessed, while moose was dried and smoked. The survey did not ask how resources were processed when they were received by respondents.

For the most part, Manley Hot Springs residents did not travel far to barter resources. Instead, the majority bartered locally with other Manley Hot Springs residents (Table C3-3). All the wild resources exchanged

6. Some survey respondents chose not to enumerate the amount of resources exchanged. This study did not expand for missing values. As a result, the total amount reported is likely lower than what was actually exchanged.

7. Both salmon and unspecified fish.

8. The type of labor was unspecified on the survey.

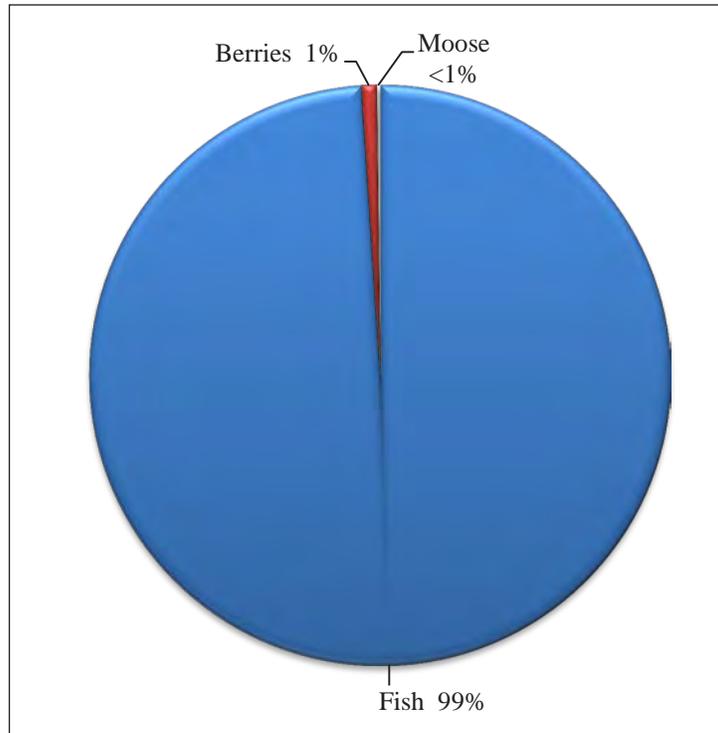


Figure 3-4.—Composition of wild resources given during barter, Manley Hot Springs, 2014.

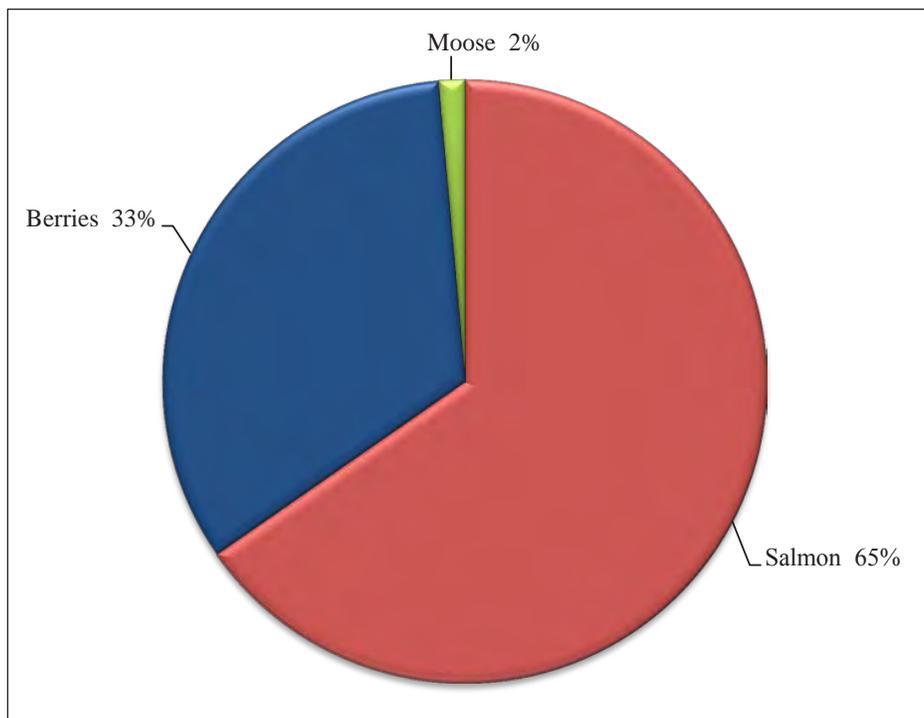


Figure 3-5.—Composition of wild resources received during barter, Manley Hot Springs, 2014.

Table 3-11.—Reported processing of wild resources given during barter transactions, Manley Hot Springs, 2014.

Resource processing	Number of transactions
Chinook salmon	
Not reported	1
Unspecified salmon	
Fresh, unprocessed	1
Frozen, unprocessed	1
Canned	1
Jarred, smoked	1
Moose	
Dried, smoked	1
Berries	
Fresh, unprocessed	2
Wood	
Split, dried	1

Source ADF&G Division of Subsistence household surveys, 2015.

meetings. One respondent noted that he had never heard the term used in the community. Instead, he speculated that residents do not say “customary trade” because they believe it refers to an illegal activity (02062015MHS5). According to another respondent, using the term customary trade “is really confusing... [a] politically correct way of saying cash sales” (02062015MHS6). When money is involved in the exchange, individuals simply say that they are “buying” or “selling” subsistence food (02062015MHS1; 02062015MHS5; 02062015MHS4).

According to one respondent, selling small amounts of fish is not a for-profit undertaking. Instead, the sale of fish supplements the cost of fishing.

You cannot look at [customary trade] as a profitable business because it’s like a woman who crochets an afghan and takes it to a fair and sells it for \$50. She didn’t even get the money for her yarn back but she did get cash money, and that’s the kind of way fish are. You never get out what you [put] into it, but it is a way of means. (02042015MHS2)

The same respondent explain that making large profits through customary trade is difficult to do, particularly because “fishing spots are few and far between [and because] processing is real labor intensive. It isn’t something that sets itself up for...big bootlegging of fish out in this area...it isn’t prone to abuse” (02042015MHS2). Instead, there are a few people who have access to viable fishing locations. They do not have the time or labor force necessary to operate a large scale, for-profit fishery. Instead, according to ethnographic respondents, the sale of salmon or wild foods is a small scale practice that occurs locally between residents and has always been a common practice (02062015MHS5; 02062015MHS4; 02062015MHS1). Survey data support this generalization while also indicating that some Manley Hot Springs residents buy resources from residents in neighboring communities. The money made during customary trade transactions supplements the cost of fishing or other subsistence activities. This characterization was also supported through the results of the household surveys presented below.

Characteristics of Participation in Customary Trade

Table 3-12 lists the actual trade transactions reported by respondents during the study year. Nine respondents reported that they trade wild foods for cash (36%; Table 3-13). Survey respondents reported that their

in barter transactions were harvested near the community. Approximately 75% of barter exchanges documented on the survey occurred in Manley Hot Springs between residents. Only a few exceptions were captured on the survey. Figure 3-6 shows the network of exchanges between Manley Hot Springs households and households from other communities. Barter transactions are represented by solid lines. The scale of the lines corresponds to the frequency of the transaction: the thickest lines represent the most frequent barter transactions. Two barter exchanges occurred in Tanana. In one instance, 2 Manley Hot Springs residents bartered while they were in Tanana. In the other instance, a Manley Hot Springs resident and a resident from Minto exchanged goods while in Tanana. Finally, 1 transaction occurred in Fairbanks between a Manley Hot Springs resident and a resident of Fairbanks. Nearly all (92%) of barter transactions occurred between friends (Table C3-4).

CUSTOMARY TRADE

Local Opinions about Customary Trade

Similar to the term “barter,” the term “customary trade” is viewed as a “political thing” more commonly used at fisheries

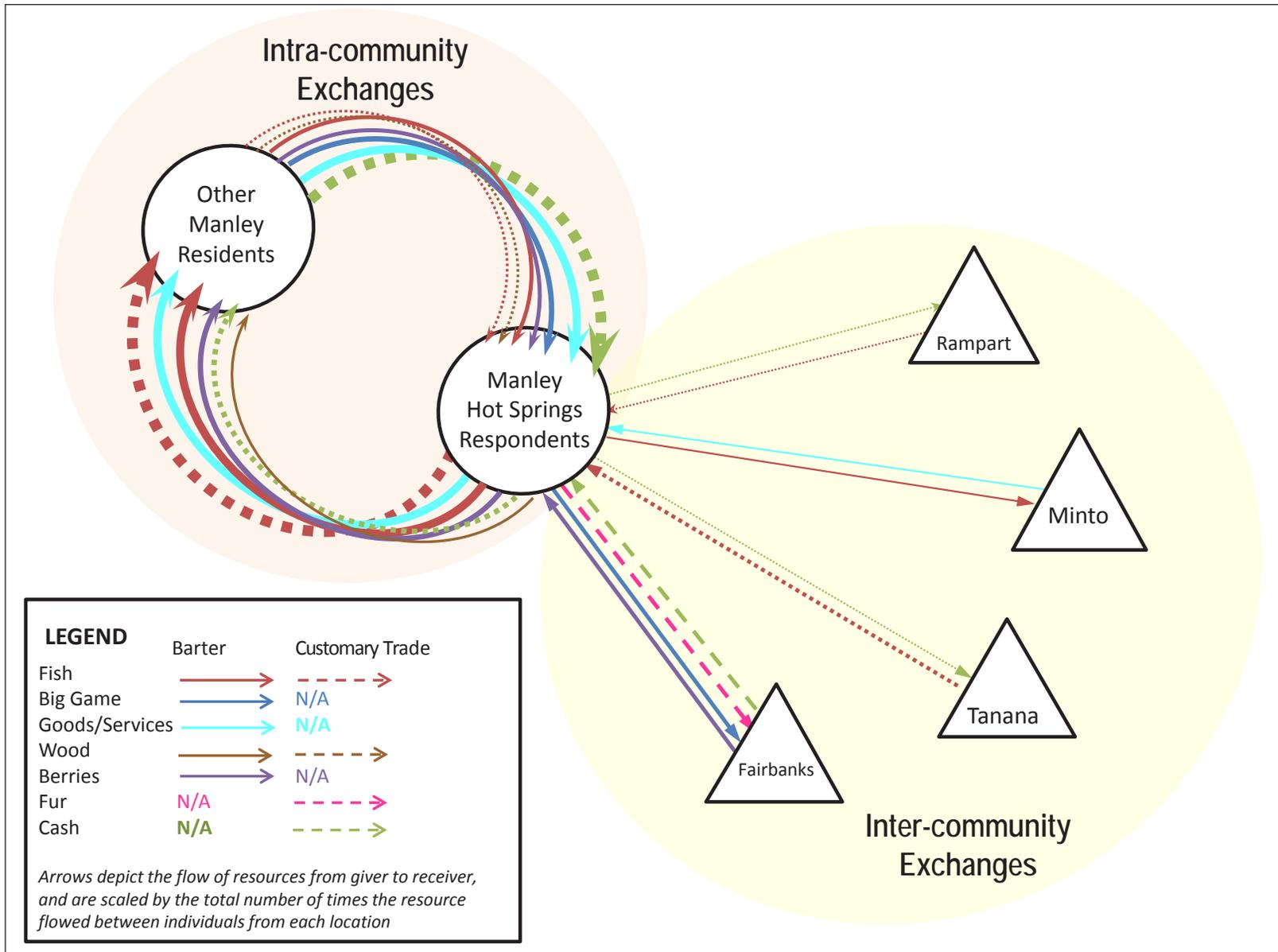


Figure 3-6.—Barter and customary trade network by location and resource, Manley Hot Springs, 2014.

Table 3-12.—Reported customary trade transactions, Manley Hot Springs, 2014.

Resource	Processing	Amount	Units	Pounds	Price	Location		Exchange partner	
						Harvest	Transaction	Residence	Relationship to respondent
Buying transactions									
Chinook salmon	Jarred, smoked	12	Half pints	4.8	\$250.00	Yukon	Manley Hot Springs	Rampart	Cousin
Coho Salmon	Frozen , unprocessed	2	Individual	14.8	\$5.00	Manley Hot Springs	Manley Hot Springs	Manley Hot Springs	Friend
Coho Salmon	Dried	10	Pounds	10.0	\$200.00	Tanana	Tanana	Tanana	Extended family
Wood	Split, dried	4	Cords	N/A	\$1,000.00	Manley Hot Springs	Manley Hot Springs	Manley Hot Springs	Community member
Selling transactions									
Chum salmon	Fresh	3	Individual	25.5	\$6.00	Manley Hot Springs	Manley Hot Springs	Manley Hot Springs	Community member
Coho Salmon	Filletted	3	Individual	13.8	\$9.00	Manley Hot Springs	Manley Hot Springs	Manley Hot Springs	Community member
Unspecified salmon	Canned	12	Half pints	4.9	\$50.00	Manley Hot Springs	Manley Hot Springs	Manley Hot Springs	Community member
Unspecified salmon	Canned	12	Half pints	4.9	\$50.00	Manley Hot Springs	Manley Hot Springs	Manley Hot Springs	Community member
Unspecified salmon	Canned	12	Half pints	4.9	\$50.00	Manley Hot Springs	Manley Hot Springs	Manley Hot Springs	Community member
Unspecified salmon	Canned	12	Half pints	4.9	\$50.00	Manley Hot Springs	Manley Hot Springs	Manley Hot Springs	Community member
Unspecified small land mammals (fur only)	Tanned	Not reported	Not reported	N/A	\$500.00	Manley Hot Springs	Fairbanks	Fairbanks	Friend

Source ADF&G household surveys, 2015.

Table 3-13.—Participation in customary trade, Manley Hot Springs.

All respondents	
Number of respondents who have ever traded	9
Percentage of respondents who have ever traded	36.0%
Respondents who trade	
Average number of years since first trade	22
Range of years since first trade	1 to 43
Average number of reported reasons for trading	3

Source ADF&G Division of Subsistence household surveys, 2015.

Table 3-14.–Reasons for customary trade, reported by respondents who have ever traded, Manley Hot Springs.

Reason	Number	Percentage ^a
We needed subsistence food	9	100%
Someone else needed subsistence food	5	56%
We needed cash	4	44%
Someone else needed something (not subsistence food)	3	33%
We had some extra subsistence food	3	33%
We needed something (not subsistence food)	2	22%
Other reason ^b		
Too busy to go out	1	11%

Source ADF&G Division of Subsistence household surveys, 2015.

a. Percentage of respondents who have ever traded.

b. Reasons volunteered by respondents.

experience trading was long-standing, averaging 22 years. Respondents trade for numerous reasons. Table 3-14 presents the reasons survey participants trade wild foods for cash.⁹ All respondents reported that needing a subsistence food was a reason to trade, and over half were motivated by need of someone else (56%). Only a third of respondents reported that needing extra cash motivated them to trade wild foods. These reasons suggest that the value of wild food, food security within a household and community, and the social nature of customary trade are more significant than the financial gains associated with customary trade.

Survey respondents who trade also identified their most important reasons for trading. More than half reported that needing subsistence food was the main reason they participated in customary trade (Table 3-15). As one survey respondent indicated, “I would like to buy wild resources because it’s good food, I don’t hunt myself.” Needing cash, having extra wild foods, or being too busy to go hunting, fishing, or gathering were all mentioned once by a household as primary motivations for trading. One ethnographic respondent described wanting salmon as a reason to participate in customary trade. Each year, the respondent spends about \$100 “for dry fish, you know? Just my personal use, you know when you go traveling or something it’s easy to take...I always have a baggie, any is good to nibble on” while out hunting or traveling (02062015MHS4). Ethnographic respondents also identified financial motivations for their participation in customary trade. Two respondents explained, “we do a lot of trading that we don’t really call trading... it’s paying your way” (02042015MHS2). The respondents described selling some of the fish they catch so they can offset the cost of fishing. “If we lost our ability to do that it would be really hard on us” (02042015MHS2).

Table 3.15. –Most important reasons for customary trade, reported by respondents who have ever traded, Manley Hot Springs.

Reason	Number	Percentage ^a
We needed subsistence food	5	56%
We needed cash	1	11%
We had some extra subsistence food	1	11%
Other reason ^b		
Too busy to go out	1	11%
Most important reason not reported	1	11%

Source ADF&G Division of Subsistence household surveys, 2015

a. Percentage of respondents who have ever traded

b. Reasons volunteered by respondents.

9. Only respondents who indicated that they had ever traded were asked to give reasons to explain their motivations.

Table 3-16.—Frequency of customary trade, reported by respondents who have ever traded, Manley Hot Springs.

Frequency	Number	Percentage ^a
More than once a year	6	67%
About once a year	3	33%

Source ADF&G Division of Subsistence household surveys, 2015.

a. Percentage of respondents who have ever traded.

Table 3-17.—Frequency of trading resources received in customary trade exchanges, Manley Hot Springs.

Frequency	Number	Percentage ^a
Never	8	89%
Rarely	1	11%

Source ADF&G Division of Subsistence household surveys, 2015.

a. Percentage of respondents who have ever traded.

Six of the respondents who trade did so more than once a year. The remaining 3 respondents did so about once a year (Table 3-16). Most respondents with a history of participation in customary trade never acted as a middleman, by trading resources bought in a trade (Table 3-17). Only 1 reported rarely acting as a middleman. These responses show that for the most part respondents are trading wild foods during single exchanges rather than reselling resources acquired through trade.

Summary of Reported Customary Trade Transactions

Thirty-six percent of surveyed households reported participating in customary trade (Table 3-18). A total of 12 trade transactions were reported by 7 survey respondents. Respondents were asked to differentiate between the buying and selling transactions in which they participated. Manley Hot Springs residents reported 4 buying transactions. In total, respondents spent approximately \$1,455 on 30 lb of wild foods and 4 cords of wood¹⁰ during the study period. About half of the buying transactions that occurred during the study period happened in Manley Hot Springs, and half occurred with people from outside of the community (Table C3-5). Eight of the 12 reported trade transactions were sales. Most of the sales reported on the survey occurred in the community (88%). Three of the seven households that reported participation in customary trade during the study year sold wild foods to households in other communities (Table 3-18). Approximately \$765 was received for 64 lb of resources sold (Table 3-19). Households reported between 1 and 5 trade transactions during the study year (Table 3-18).

One ethnographic respondent explained that the sale of salmon is not always planned. Instead, he might start off with the intent to just share some salmon with another resident but then “someone gives me [cash] and goes, ‘here!’ Or I give them a fish and they say, ‘here I’ll give you some gas money or whatever’ but I wouldn’t ever ask for it” (02062015MHS4). Salmon, specifically Chinook, chum, and coho salmon, were the only edible resources bought or sold by Manley Hot Springs residents (Table C3-6; figures 3-7 and 3-8). Appendix Table C3-6 shows the resources and cash exchanged during customary trade. One survey respondent bought \$1,000 worth of firewood while another respondent remembered selling \$500 worth of fur during the study period. The remaining exchanges were composed of salmon. Manley Hot Springs households reported buying a total of \$455 worth of salmon. In one exchange, 12 half-pint jars of smoked Chinook salmon were bought for \$250 from a Rampart resident who was in Manley Hot Springs at the time of the exchange (Table 3-12). In another transaction, a Manley Hot Springs resident bought 10 lb of dried coho salmon for \$200 from a Tanana resident. Finally, 2 whole coho salmon were bought for \$5 from another Manley Hot Spring resident.

Survey respondents reported buying an estimated 25 lb of coho salmon and selling 14 lb of coho salmon, accounting for 46% of the wild foods exchanged during the study year (Table C3-6). Twenty-six percent of the wild foods traded came from the sale of an unspecified type of salmon. Respondents did not report selling Chinook salmon, but 8% of trade transactions came from the buying of Chinook salmon. In total,

10. Under ADF&G statute, wood is not a wild or edible resource and therefore not regulated under customary trade law. However, the respondent self-identified this transaction as a customary trade exchange because it involved a natural resource. Therefore it is included in our results.

Table 3-18.—Reported customary trade transactions at the household level, Manley Hot Springs, 2014.

Number of households reporting customary trade transactions	7
Percentage of surveyed households reporting customary trade transactions	28%
Average number of transactions per trading household	1.71
Range in number of transactions per trading household	1 to 5
Buying transactions	
Number of households reporting buying transactions	4
Number of buying transactions	4
Average number of buying transactions per buying household	1.00
Number of households buying from another community	2
Percentage of buying households buying from another community	50%
Selling transactions	
Number of households reporting selling transactions	3
Number of selling transactions	8
Average number of selling transactions per selling household	2.67
Number of households selling to another community	1
Percentage of selling households selling to another community	33%

Source ADF&G Division of Subsistence household surveys, 2015.

30 lb of salmon was bought and 64 lb of salmon was sold during the study year. The absence of wild foods besides salmon in the documented barter and trade exchanges indicates the central role that salmon plays in the distribution networks of in Manley Hot Springs. Due to the small sample size, it is quite possible that other wild foods were exchanged during the study year. However, the thorough ethnography described throughout this chapter supports the characterization that salmon, specifically Chinook salmon, is a key resource in the customary trade networks in which residents participate. Ten of the 12 reported trade transactions involved salmon (Figure 3-9; Table 3-12). Unspecified salmon was sold more often than any other resource, and coho salmon was bought more frequently than other types of salmon (figures 3-7 and 3-8).

The majority of trade transactions involved processed salmon, usually jarred (Table 3-20). Half of all exchanges involved jarred salmon. Processing salmon in this way allows it to keep for long periods of time without the use of a freezer. Only 2 exchanges involved trading unprocessed salmon. One ethnographic respondent believed that salmon is the most often traded wild food in Manley Hot Springs “because of the way you get it I guess. Not everybody can get it you know?” (02062015MHS4). As discussed above, successful fishing takes time, money, gear, and a viable fishing location. Not everyone who wants fish is able to fish because of these limitations, so customary trade is one way that people get the fish they need.

For the most part, Manley Hot Spring residents traded with friends or other community members but rarely reported buying or selling with family members (Table C3-7). An ethnographic respondent explained that customary trade “is just a friend to friend thing I guess...I wasn’t out to make a big dollar out of it or a business” (02062015MHS4). Only 2 of the 12 instances of trade occurred between family members (Table C3-7).

Figure 3-6 and Table C3-5 show the locations that resources were harvested and bought or sold, as well as where the trade partner resides. All of the trade, including both buying and selling transactions, occurred in the Manley Hot Springs area; the bulk of transactions occurred within the community. Seventy-five percent of buying transactions and 88% of selling transactions occurred within Manley Hot Springs. However,

Table 3-19.—Summary of reported customary trade transactions, Manley Hot Springs, 2014.

Number of reported customary trade transactions	12
Number of households reporting customary trade transactions	7
Buying transactions	
Number of buying transactions	4
Percentage of all transactions	40%
Total amount spent in buying transactions	\$1,455
Range of amount per transaction	\$5 to \$1,000
Total weight of wild foods bought	29.6 lb
Range of weight per transaction	4.8 lb to 14.8 lb
Total cords of wood bought	4 cords
Percentage of buying transactions between Manley Hot Springs residents	50%
Selling transactions	
Number of selling transactions	8
Percentage of all transactions	60%
Total amount received in selling transactions	\$765
Range of amount received per transaction	\$6 to \$500
Total weight of wild foods sold	64 lb
Range of weight per transaction	4.9 lb to 25.5 lb
Percentage of selling transactions between Manley Hot Springs residents	88%

Source ADF&G Division of Subsistence household surveys, 2015.

half of the buying transactions involved a person who lives in another community. Figure 3-6 shows the geographic exchange network. Customary trade transactions are represented by dashed lines and scaled by frequency of exchange. Figure 3-6 depicts these patterns of exchange. The buying and selling of wild foods in which Manley Hot Springs residents participate is predominately localized in nature and small in scale. The trade reported during the study year that occurred outside Manley Hot Springs took place in the neighboring communities of Tanana and Fairbanks.

CONCLUSION

Of the 25 survey participants, 15 said that they exchange wild foods either through barter, customary trade, or both (Figure 3-10; Table C3-8). Barter was more common among Manley Hot Spring residents than trade. Six respondents said that they only barter, and 2 respondents said they only trade. However, 7 said they participate in both trade and barter. The practice of exchanging wild foods is motivated by a variety of factors which can often overlap and lead a person to participate in both barter and trade. Friends were more likely to barter with one another than with strangers, family members, or other community members. In fact, 92% of all reported barter transactions occurred between friends (Table C3-3). The relationships between buyers and sellers in customary trade transactions were different. In trade transactions, respondents were more likely to sell to neighbors or other community members than they were to sell to friends. No respondents reported selling wild foods to family members (Table C3-7).

During ethnographic interviews, respondents described feeling motivated to barter or trade by a sense of altruism: they want to look out for their friends and fellow community members. The desire to return a favor can quickly turn a simple sharing exchange into a barter or cash trade. The survey data show that needing food for one's own household was the most important reason that respondents barter and trade (31% and 56% respectively; tables 3-5 and 3-14). In barter exchanges, knowing that someone else was in need was

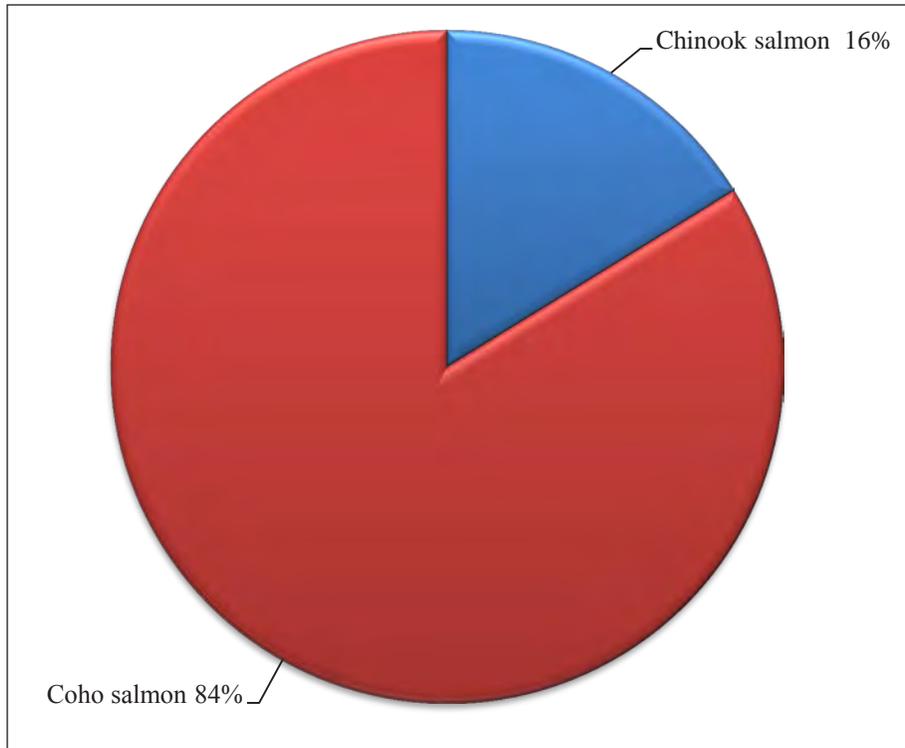


Figure 3-7.—Composition of resources bought in customary trade exchanges, Manley Hot Springs, 2014.

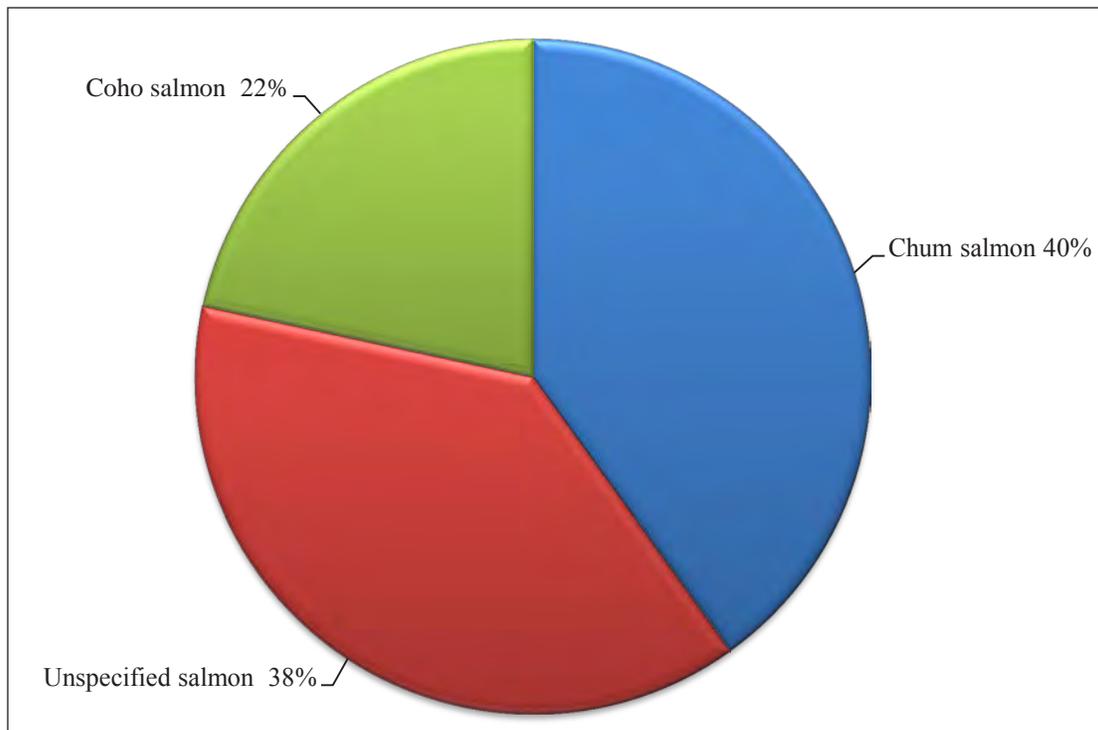


Figure 3-8.—Composition of resources sold in customary trade exchanges, Manley Hot Springs, 2014.

Table 3-20.—Reported processing of resources exchanged in customary trade transactions, Manley Hot Springs, 2014.

Resource processing	Number	
	Buying transactions	Selling transactions
Chum salmon		
Fresh, unprocessed	-	1
Chinook salmon		
Jarred, smoked or other	1	-
Coho salmon		
Frozen, unprocessed	1	-
Dried	1	-
Filletted	-	1
Unspecified salmon		
Canned	-	1
Small land mammals (fur only)		
Tanned	-	1
Wood		
Split and dried	1	-

Source ADF&G Division of Subsistence household surveys, 2015.

also a significant motivator to participate in the exchange (31%; Table 3-5). In both barter and trade transactions, salmon made up the majority of giving, receiving, buying, and selling interactions. In barter transactions, other wild foods including berries and moose were frequently exchanged in addition to salmon (Figure 3-2). During customary trade transactions however, salmon was the only wild food bought or sold by survey participants (Figure 3-9).

Although the legal distinction between barter and customary trade is clear, in practice the fluidity of exchanges can make classifying a transaction less precise. Respondents made an effort to communicate the casual, friendly, and happenstance nature of wild food exchanges that often changes a transaction from one classification to another. In

doing so, they depicted a culture of exchange that exists on a continuum in Manley Hot Springs.

Ethnographic respondents were clear in their belief that customary trade is a long-standing practice that enhances the local subsistence economy. Selling salmon or other wild foods allows residents to continue their year-round subsistence activities by supplementing the cost of fuel or equipment or by compensating for lost wages. One respondent expressed concern that without customary trade the culture of fishing from camps far from town would be impossible:

I think without what you guys call customary trade, which we call buying and selling of subsistence products, if that isn't allowed, that will be the end of every remote camp unless you are well to do and you're just looking for a summer vacation. You have to be able to generate some income to run the camp, and of course everybody wants a few extra bucks too, I mean, to go to the movies or to get your groceries or you know, to just live on. You can't, most people can't take a summer off to go fishing. You know, if you happen to live in the village that's different [because] you can always run out in the evening to check your net if you got a job in the village or something like that but I think that if customary trade isn't allowed, it's going to be the death now of every remote fish camp. By that I mean 20 or 30 miles away from a village on the river. (02062015MHS5)

For elder respondents, thinking of customary trade as an illegal activity is upsetting. One couple explained that customary trade is a “traditional” practice and therefore should not be restricted:

It's traditional and you don't get bothered by it. [Customary trade] is traditional use because you've been doing it for a thousand years and when [law enforcement officers] start telling you can't do it, because it's traditional use that hurts and I don't like that. Like I told them before, you just don't touch that word traditional use because it's important to keep that. (02042015MHS2)

Survey participants had the chance to give their opinions about customary trade. Similar to the ethnographic respondents, they felt that the practice enhanced their subsistence economy.

Customary trade is okay as long as it stays within reasonable bounds and people don't make a business out of it. Some people need it because they may be too old to hunt or fish or berry pick for themselves or may not have the gear or equipment.

Another survey respondent added, "It's important to let rural residents continue our customary trade. It's basically regulated in the culture itself. It is already regulated."

Continuing customary trade is important for these respondents because they place value in the tradition, but also because supplementing the cost of fishing is a pragmatic necessity.

ACKNOWLEDGEMENTS

The author would like to thank the residents of Manley Hot Springs for their hospitality during the time of field work and for their generous participation in this project. In particular, the time spent with ethnographic respondents added invaluable context to our understanding of the localized nature and culturally significant practices surrounding the exchange of wild foods. The local research assistants hired for this study made the data collection process efficient and enjoyable. Special thanks to the Manley Hot Springs Traditional Council, which took time to evaluate the project and approve the research plan.

4. VENETIE

Brooke M. McDavid

COMMUNITY BACKGROUND

In October 2016, 3 Alaska Department of Fish and Game (ADF&G) researchers and 2 local research assistants surveyed 26 of 69 (38%) households in Venetie (Table 4-1). This chapter summarizes the findings from the household surveys, including participation in barter and customary trade, characteristics of these exchanges, and a summary of transactions. To provide more context for the survey data, 5 ethnographic interviews were conducted with 5 men in the community who were either active hunters and fishers or who had been in the past, and who also had histories of participation in barter and customary trade.

Venetie (*Vijhtqij* in Gwich'in¹) is located in the Yukon Flats region along the north bank of the Teedriinjik River (Plate 2-1; formerly Chandalar River²), approximately 45 miles northwest of Fort Yukon and 80 miles south of Arctic Village. Native residents of Venetie are descended primarily from the Neets'ain Gwich'in, a group of Athabascans who historically occupied the region extending approximately from the Brooks Range into the northern Yukon Flats, with the East Fork of the Teedriinjik River as an approximate western boundary and the Coleen River as an eastern boundary (McKenna 1965; Osgood 1934). Traditionally, the Neets'ain Gwich'in traveled extensively throughout the greater region, moving between seasonal camps, but primarily residing in the foothills of the Brooks Range north of the Yukon Flats. Neets'ain translates roughly into “those who dwell off the flats” (McKenna 1965) or “on the side of the mountain” (Gwich'in Social and Cultural Institute and Gwich'in Language Centre 2003).

During the 1800s, non-Natives began probing into Interior Alaska in search of furs. In 1847, the Hudson's Bay Company established a post at Fort Yukon, where local Gwich'in began selling furs and trading them for imported goods.³ The introduction of cash and the availability commercially produced goods, such as rifles and ammunition, gradually produced shifts in the traditional lifeways of local people. Before the introduction of firearms, the Neets'ain Gwich'in relied on caribou fences, which required a great deal of cooperative effort to build, utilize, and maintain (Campisi 2002; Hadleigh-West 1963; McKenna 1965).⁴ They were slowly abandoned in favor of rifles, which allowed hunters to travel more independently in search of game. The death of the long term chief, Chief Peter, in 1890, left tribal members unable to agree on a successor, and family groups eventually formed 3 separate settlements: Arctic Village, Christian Village, and Venetie (Campisi 2002; McKenna 1965).

Venetie was settled around 1895 by a man named Old Robert and his family (McKenna 1965; Venetie Village Council 2013). The Neets'ain had historically lived outside the range of salmon runs, and the Teedriinjik River provided their first consistent access to salmon harvests. The river also served as a travel corridor between the East Fork of the Teedriinjik River (where Arctic Village is located) and the Yukon River. By the 20th century, the presence of outsiders in the region had increased greatly. Missionaries

1. Alaska Native Language Archive. 2017. “Alaska Native Place Names.” Accessed September 20, 2017.

<https://www.uaf.edu/anla/collections/map/names/>

2. In 2015, the US Board of Geographic Names officially changed the name of the Chandalar River back to the traditional Gwich'in name, *Teedriinjik*. The name “Chandalar” came from a corruption of *gens du large*, a reference to the Neets'ain's extensive range of travel given by Hudson Bay Company explorers (McKenna 1965; Slobodin 1981).

3. Tanana Chiefs Conference. 2007. “Fort Yukon.” Accessed September 20, 2017.

<https://www.tananachiefs.org/about/communities/fort-yukon/>

4. U.S. Fish and Wildlife Service (USFWS), Arctic National Wildlife Refuge, Alaska. 2012. “Caribou Fences: People of the Caribou.” Accessed November 8, 2017 <https://www.fws.gov/refuge/arctic/cariboufences.html>

Government of the Vuntut Gwitchin First Nation. n.d. “Caribou Fences.” Accessed November 8, 2017. <http://www.vgfn.ca/heritage/>

Table 4-1.—Sample achievement and demographic characteristics, Venetie, 2015.

Sample achievement¹	
Estimated households in community	72
Initial households in sample	34
Households moved or occupied by nonresident	3
Households added to sample (to replace refusals and no contacts)	11
Revised number of households in sample (survey goal)	42
Households surveyed	26
Households failed to be contacted	6
Households declined to be surveyed	10
Total households attempted to be surveyed	42
Refusal rate	27.8%
Percentage of sample surveyed	61.9%
Percentage total households surveyed	37.7%
Demographics²	
Estimated population	177.0
Percentage Alaska Native	99.4%
Median household income	\$27,500.00
Per capita income	\$12,897.00

Source ¹ADF&G Division of Subsistence household surveys, 2016.

² U.S. Census Bureau, American Community Survey 5-year estimate, 2011–2015.

expanded from Fort Yukon into surrounding settlements, and the gold rush brought prospectors into the Teedriinjik River drainage. Around 1905, a large mining camp was established at Caro, about 65 miles upriver from Venetie (Gilbert 2013). Although some mining in the drainage has continued to present date, the infrastructure that was quickly built during the gold rush (store, saloon, and other buildings) was largely abandoned by 1910.⁵

The exchange of resources within and between communities was customary long before the first white explorers entered the Yukon Flats region (Caulfield 1983; McKennan 1965). Journals from early explorers and missionaries mention local Gwich'in Athabascans trading with Lower Tanana Athabascans who acted as middlemen by bringing coastal Dena'ina goods, such as dentalia, copper knives, and arrowheads, to the Interior and redistributing them through trade (McKennan 1965; Slobodin 1981). Later this trade route brought iron tools and beads to the Chandalar region. Neets'ain Gwich'in also had established trade relationships with North Slope Iñupiaq. Trading parties would sometimes travel to the northern coast to trade, but groups from each region also gathered together periodically at more centralized locations to trade and feast (McKennan 1965). Old John Lake near Arctic Village was a particularly notable location for these trading events. The Neets'ain Gwich'in gave items such as wolverine skins and baskets woven from spruce roots and in return received Arctic furs such as polar bear and Arctic fox (Slobodin 1981). They obtained their first rifles and iron kettles through trading relationships with the Iñupiaq, who acquired them from whalers (McKennan 1965). During early years of Euroamerican contact, ammunition was scarce and Neets'ain trading groups would sometimes travel to other communities such as Old Rampart to obtain it (Campisi 2002). There is also at least one account of Neets'ain Gwich'in traveling as far south as the Cook Inlet-Prince William Sound region to trade at a non-Native outpost there (McKennan 1965).

5. USFWS, Yukon Flats National Wildlife Refuge, Alaska. 2014. "Villages." Accessed September 20, 2017. https://www.fws.gov/refuge/yukon_flats/about/villages.html



Plate 4-1.—Winter view of the Teedriinjik River near Venetie.

Once the Fort Yukon trading post was established, it quickly became the center of trade in the Yukon Flats region. Large, extended gatherings would occur around the Christmas season when people (usually men) from outlying communities would travel by dog sled to Fort Yukon to engage in festivities and to trade their goods (McKenna 1965). Here the Neets’aii Gwich’in would trade furs for items such as ammunition, traps, tobacco, sugar, and flour. People from the Chandalar region used the Swift River trail to travel to Fort Hamlin, the current site of Stevens Village, to trade (Schrader 1900). The establishment of the Caro mining camp greatly increased trade with non-Natives (Andrews 1977; Caulfield 1983; Schneider 1976), to whom the Neets’aii Gwich’in sold meat and other goods (Hadleigh-West 1963).

In 1937, John Fredson (a Neets’aii Gwich’in from the Sheenjek River area and the first Alaska Native to graduate college) moved to Venetie as a teacher and shortly thereafter began lobbying for the establishment of a reservation for the Neets’aii Gwich’in (Campisi 2002). Fredson and other tribal members were concerned about their ability to govern their traditional lands and manage the exploitation of their resources by outside miners, trappers, and hunters. In 1944, before Alaska was a state, Fredson’s efforts were successful in helping establish the Venetie Indian Reservation that encompassed 1.8 million acres of land and included the settlements of Venetie, Arctic Village, and Christian Village. Later, during the 1971 Alaska Native Claims Settlement Act (ANCSA) proceedings, Venetie and Arctic Village⁶ used a provision in the law to forgo monetary payments and instead receive title to the reservation land; they were 2 of only 7 communities in Alaska to do so (Hays 2015). The Native Village of Venetie Tribal Government presently owns and manages this land jointly for the 2 communities. These tribal lands are almost completely surrounded by federal land; Yukon Flats National Wildlife Refuge borders the tribal lands to the south, and Arctic National Wildlife Refuge lies to the north.

Approximately 177 people reside in Venetie in 69 households; 99% of residents are Alaska Native (Table 4-1). The median household income in 2015 was estimated at \$27,500, and the per capita income was \$12,897.⁷ Local government employs the most people in the community, followed by jobs in construction and mining; however, only about 40% of positions provided year-round work in 2015.⁸ Venetie has a school, a health clinic, a post office, a community building, a store, and an airport (Plate 2-2; Venetie Village Council 2013). Situated in the northern boreal forest, Venetie experiences a sub-Arctic climate with extreme seasonal temperature differences. The community’s relative proximity to both the expansive wetlands of the Yukon Flats, as well as the alpine tundra of the Brooks Range to the north, provides access to a variety of habitats for subsistence activities.

6. Christian Village was no longer a permanent settlement by this time, although it remained an important use area.

7. Alaska Department of Labor and Workforce Development (ADLWD), Research and Analysis Section. Juneau, n.d. “American Community Survey: Venetie CDP.” Accessed November 8, 2017.
<http://live.laborstats.alaska.gov/cen/acsarea.cfm>

8. Alaska Department of Labor and Workforce Development (ADLWD), Research and Analysis Section. Juneau, n.d. “Alaska Local and Regional Information: Venetie CDP.” Accessed September 20, 2017.
<http://live.laborstats.alaska.gov/alari/>



Plate 4-2.—Post office and community building in Venetie.

Venetie residents utilize a wide variety of subsistence resources. Subsistence harvest data collected for study year 2009 showed that residents harvested 39 different species, amounting to almost 75,000 lb of edible wild foods during the study year (Kofinas et al. 2016). Large land mammals made up the largest proportion of this harvest by weight (50%), followed by salmon (28%), nonsalmon fish (9%), and birds (7%). Kofinas et al. (2009) also examined the ways in which wild foods are acquired and distributed throughout the community. Although 99% of households used wild foods and 81% harvested them, the harvest amounts were not equally distributed across households. Thirty percent of households harvested 93% of the total resources by weight. Across all households in the community, household harvests provided 37% of the wild foods to community households; cooperative harvest provided 25%; sharing provided 23%; and 14% of the wild foods entering households were acquired via another type of contribution to the harvest effort (such as gas or supplies). Less than 1% of subsistence foods entered households by way of barter or customary trade.

History of Local Salmon Fishery

Historically, the Neets' ai Gwich'in were primarily hunters who fished nonsalmon species to supplement their diet (McKenna 1965). Salmon fishing and the use of fish camps were not common subsistence practices of the Neets' ai people because they did not live within the range of salmon migration until Venetie was settled. After Venetie was established, salmon fishing became part of the seasonal round of subsistence activities, but whitefishes and other nonsalmon species were still the most important fish in residents' diets. By the 1930s, gillnets had been introduced and were being used for fishing; however, some traditional fishing gear types such as fish traps, weirs, pole snares, spears, and dip nets were also still in use. Prior to the introduction of freezers, fish in general were typically eaten fresh or split and dried.

Post-statehood,⁹ ADF&G began collecting subsistence salmon harvest data. Between 1960 and 1982, the average chum salmon harvest¹⁰ in Venetie was around 2,285 fish annually (McLean and Raymond 1983). Some families from Venetie traveled downriver to fish camps on the Yukon River to fish for Chinook salmon in July, but fishing for fall chum salmon primarily took place near the community in August and September (Caulfield 1983). An elder key respondent in this study recalled when fish camps were much more prevalent: "It is really funny you know, back in those days when you go downriver it is just smoky, there's so many fish camps" (110216VEE02). After the introduction of snowmachines in the 1960s, the number of dogs in Venetie declined and so did the number of fish needed for dog food (Caulfield 1983).

9. Alaska became a state in 1959.

10. Early ADF&G reports did not distinguish between summer and fall chum salmon on the Teedriinjik River (at that time, called the Chandalar River).

However, a rise in the popularity of racing caused the number of dogs to increase again shortly thereafter. One key respondent said that before freezers were available, all fish were split and dried for preservation. “They didn’t have electricity here until ‘84 or ‘83. The school had electricity but didn’t have electricity in the houses. So they dried everything out, smoked it, put it caches. And yeah, they never froze anything” (110516VEE03).

The same respondent also talked about how fishing was regulated by customary law before state and federal agencies “showed up:”

It was mostly just the village elders and stuff running catching the fish and stuff like that...They didn’t have many boats back then, not that many people had nets, so what they caught they shared among with everybody else and mostly they dried whatever they can just for the winter...Mostly it is all taught by tradition from elders telling us how to do it, when to do it, how not to waste anything like that. We still practice all that, how we were raised...you catch enough fish but don’t overdo it. And they checked our nets and when they had enough fish they’ll pull their net and they will not abuse it. There is no need [to] keep catching. I mean there is no need to catch a lot of fish for no reason. (110516VEE03)

Contemporary Salmon Fishing Profile

At its confluence with the Yukon, the Teedriinjik River is slow-flowing and braided, but it becomes progressively more narrow and swift-flowing further upstream. In the summer, the water levels are primarily influenced by rain and, to a lesser degree, glacial melt (Melegari and McGuire 2017). The river is normally free of ice in early June and freezes in early October. Chinook, chum, and coho salmon are all found in the Teedriinjik River. Fall chum salmon have historically been the most important salmon species in Venetie due to their great abundance. In fact, the fall chum salmon stock in the Teedriinjik River drainage is the largest within the larger Yukon River drainage.

Although Chinook salmon do spawn in the Teedriinjik River and its tributaries, they are not known to be plentiful (Melegari and McGuire 2017). However, multiple interview respondents noted that during the past decade they have been seeing greater numbers of Chinook salmon locally (110416VEE01, 110216VEE02, 110516VEE03). One respondent provided his view of this change:

We [used to] fish just for dogs ‘cause up here there was no king salmon coming in like it is now. It’s really funny you know that we used to fish for just the chums here ‘cause lots come up here...the king salmon, I mean just it’s a funny thing, it seems like they’re getting to be more and more coming into this river. I don’t know, maybe that water is colder. (110216VEE02)

Although no data have been collected on the change in numbers of Chinook salmon in the Teedriinjik drainage, these observed changes could possibly be attributed to environmental factors (as suggested by respondents) or to increased closures on the mainstem Yukon River that may be resulting in more fish opportunistically entering the tributary.

Coho salmon typically arrive after freeze-up and are not generally targeted under the ice by residents. However, if freeze-up is later than usual and people are still fishing for dogs, they will sometimes catch coho salmon when targeting fall chum salmon (110416VEE04).

Since 1990, salmon harvest data have been collected annually through post-season household harvest surveys administered by ADF&G Division of Commercial Fisheries. Data from these surveys show that fall chum salmon is the primary type of salmon harvested by Venetie residents. Fall chum salmon composes an average of 81% of the harvest by number of fish (Figure 4-1, Table C4-1). Between 1990 and 2015, an average of 2,590 fall chum salmon, 223 summer chum salmon, 358 Chinook salmon, and 42 coho salmon were harvested each year. During the 1990s the average total salmon harvest was almost 5,000 fish annually, but this number dropped to 1,800 during the 2000s. This drastic decrease in harvest coincided with a steep decline in returns of both fall chum and Chinook salmon that led to more restricted fishing.

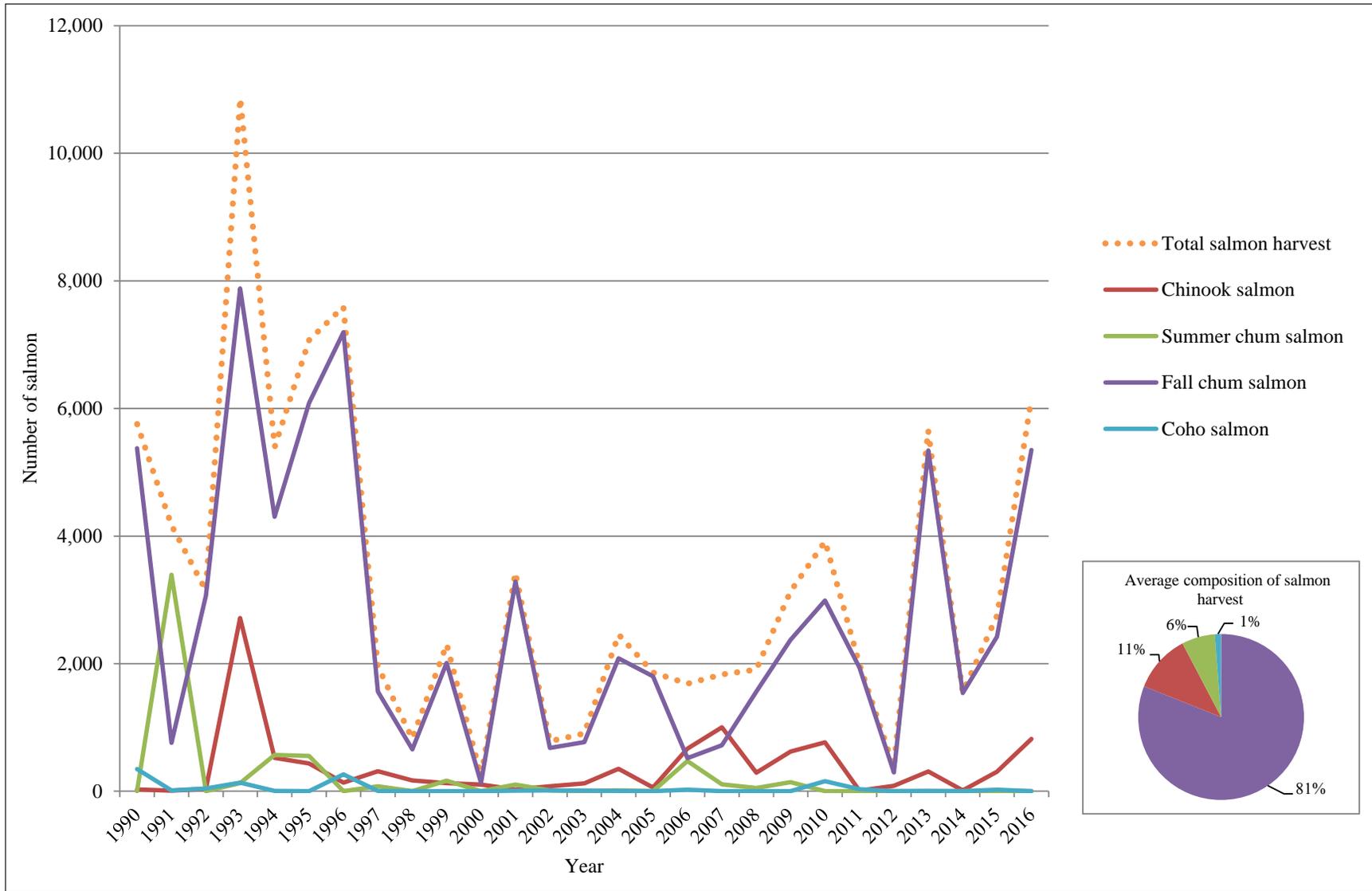


Figure 4-1.—Salmon harvests composition of salmon harvest by number, Venetie, 1990–2016.

Average annual harvest has increased slightly since 2010 to approximately 2,700 fish. The average annual harvest of Chinook salmon has increased slightly since 2006, which could relate to respondent comments about increased local availability of this resource (110416VEE01, 110216VEE02, 110516VEE03).

A significant portion of the salmon harvested by Venetie households is used to feed dogs. Figure 4-2 compares the number of salmon fed to dogs to the total harvest. On average, 70% of the salmon harvest is used for dog food, and fall chum salmon composes 90% of the salmon fed to dogs (Table C4-1).

A thorough description of fishing patterns in Venetie was provided by an interviewee:

Usually you get all your fish during either in August, September, or for salmon down in the Yukon River that'd be in July. And we get very little salmon, not as much the Fort Yukon people does 'cause they live right there on the Yukon River, but you know we get little to keep us going for the winter. You always try get enough for the winter but mainly chum salmons. You pick them out and you get the best ones out of it...those are the main ones, staples anyway for the winter. There's a difference between a chum salmon, the good ones and the bum ones. We been living on this river for thousands of years so I've learned everything from my dad, my grandpa, my grandma, my uncles, my friends and all you know. They know how to pick fish. And you dry 'em and then you split 'em and dry it and you put 'em away for the winter in your cache, and boy they're good, half-dried fish. And during fall you hang them up and they don't spoil because the cold sets in then it just kind of stay refrigerated...The king salmons is the one that you gotta smoke, you know, or they'd spoil easily during the summer. Back then we don't know what a refrigerator is, but nowadays you can get a fish and just throw 'em in the freezer and then you got a little fish for the winter. (110416VEE01)

Venetie residents primarily use set gillnets to harvest salmon. The Teedjiinrik River is not generally deep enough for fish wheels, although some families occasionally travel to fish camps on the Yukon and may use fish wheels there to target Chinook salmon. When asked if people travel to fish on the Yukon, one respondent noted, "My Dad used to do that with a fish wheel. We used to go down there. But then with this closure stuff and everything most of the people just fish here" (110416VEE02). The Chinook salmon that reach Venetie are of highly variable quality. As explained by a fisher:

If you catch 10 king salmons, probably edible is only like 1 or 2. If you're lucky enough, be about 3. But then if its firm, I would take it and I'll smoke it. In fact, I send some to Fairbanks to my grandkids. Boy they like it, you know. 'You got some more?' I said no, I can only get 1 or 2 out of 10 catch, and the rest I have to use them for dog food. (110416VEE01)

The Teedriinjik River is managed as part of the Yukon River drainage, and fishing in Venetie is regulated as part of sub-district 5D. The normal subsistence schedule is 7 days a week, and the allowable gear types are gillnets and fish wheels. In one respondent's opinion, regulations on the Teedriinjik River should not be the same as on the Yukon River because it is not a transboundary river (110416VEE05). The fish that spawn in the Teedriinjik are not of Canadian origin, nor are they subject to the escapement requirements of the Pacific Salmon Treaty. The respondent said that that in the past when salmon harvests have been restricted due to low Chinook salmon numbers in order to allow for sufficient passage into Canada, those regulatory restrictions have affected Venetie residents' ability to target local fish on the Teedriinjik River.

Restrictions on salmon fishing coupled with regulations that confine the legal parameters of barter and trade have the potential to affect the customary and traditional patterns of resource exchanges that might occur more freely otherwise. In Venetie, only one respondent mentioned that regulations have had an effect on exchange practices. They described a time when they were not allowed to send waterfowl to elders in Fairbanks and that bags were being checked for waterfowl when Venetie residents flew into town. "We don't want to see that happen to the salmon, or you know, with the bartering and trading. We don't want to eliminate our elders who live in town the way they tried to do with ducks" (110416VEE04). The ability to

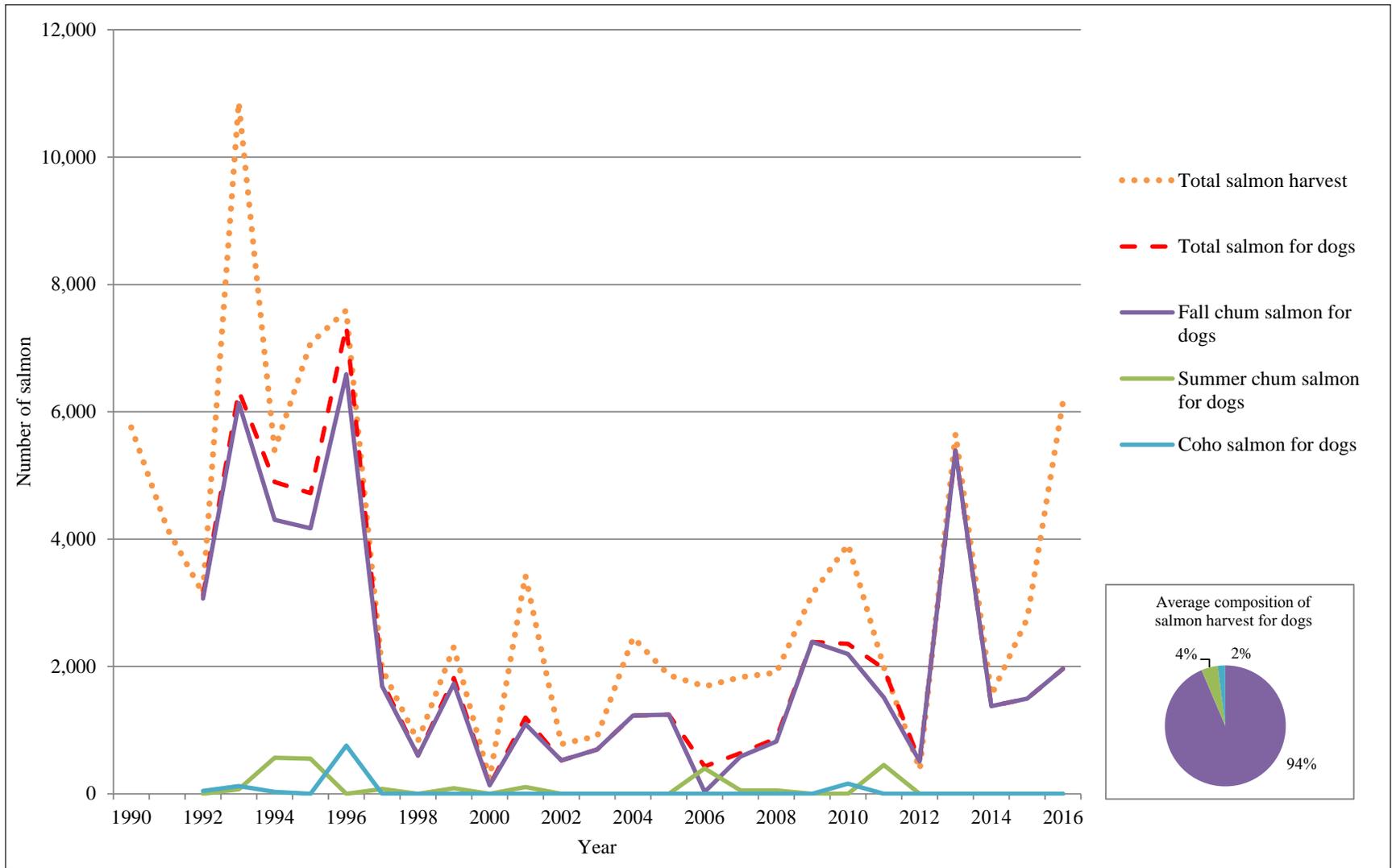


Figure 4-2.—Salmon harvests for dogs and composition of salmon harvest for dogs by number, Venetie, 1990–2016.

freely share and exchange resources with family and friends living elsewhere is important to residents in Venetie.

Similarly, self-governance of their land and resources is important to Venetie residents.

They want to regulate their selves. They don't want anybody to tell them what to do. And they have been doing that by the traditional way. They're keeping a good hand on it. There's no waste and stuff like that. I know one of the things is they don't want to be into the part where they have to fill out permits and wait for seasons...Instead of like you guys go by seasons and regulations and stuff like that, we go by when they get here. We go mostly, everything goes by when it happens...When the fish do show up people will talk and say 'Okay, fish. They're here.' Go and get fish and maintain it and don't waste anything...And we don't want anybody telling us what to do. I mean, you know what I mean. Just to be free and maintain it ourselves; that is the way we have been taught to take care. (110516VEE03)

BARTER

Local Characterization of Barter

In Alaska, the legal definition of barter refers to the exchange of a subsistence resource for another subsistence resource or other item, but not for cash.¹¹ During surveys and ethnographic interviews in Venetie, the exchange of one subsistence good for another was referred to as “trade” and not “barter” by some respondents, and others simply spoke of exchanges in terms of the goods they gave away and received. In no case was the term barter used independently by respondents without first being used by a researcher. Although some participants knew that a legal definition for the term “barter” exists, the meaning was not clear to them. When asked how they would define the exchange of subsistence resources, one respondent said it could be referred to as either sharing or trading (110416VEE05).

Overall, participants characterized barter into 2 categories of transactions: 1) planned or arranged exchanges and 2) exchanges that began as sharing but turned into barter through reciprocation. A planned exchange would involve one party approaching another, offering an item, and requesting something else in return because they want or need that particular item. Goods could be exchanged concurrently, or the exchange could involve delayed reciprocity, in which one party receives an item in the present and the other completes the exchange in the future. A barter exchange that evolves from sharing would involve one party giving or receiving an item from another with no request for something in return; however, the recipient would “return the favor” and give something back to the other. Respondents frequently described this type of exchange as involving delayed reciprocity.

Especially in exchanges that involve delayed reciprocity, the line between barter and sharing is blurred, and in the view of local people that line may not even exist. An elder respondent emphasized that a discussion of barter (or customary trade) should not take place independently from a discussion of the larger sharing culture: “A lot of it is sharing too. It's not just bartering. It's not just selling. It's how you respect. You have your respect for your family, neighbors, the whole town” (110416VEE01). Sharing and, more broadly, the redistribution of resources is a well-documented hallmark of subsistence economies (Kofinas et al. 2016; Wolfe et al. 2009). This sharing ethic percolates through all the more nuanced exchanges that are explored in this report.

Participation in Barter

Of the 26 survey respondents, 12 (46%) said that they barter (Table 4-2). The average length of time since respondents first bartered was 6 years, although 3 people said that 2015 was their first year doing so, and

11. AS 16.05.940(2) defines barter as “the exchange or trade of fish or game, or their parts, taken for subsistence uses for other fish or game or their parts; or for other food or for nonedible items other than money if the exchange is of a limited and non-commercial nature.”

Table 4-2.—Participation in barter, Venetie.

All respondents	
Number of respondents who have ever bartered	12
Percentage of respondents who have ever bartered	46.2%
Respondents who barter	
Average number of years since first barter	6
Range of years since first barter	less than 1 to 20
Average number of reasons for bartering reported	2

Source ADF&G Division of Subsistence household surveys, 2016.

1 respondent had been bartering for 20 years. Respondents who said that they barter specified a variety of reasons why they barter. Most commonly, either the respondent or someone else needed subsistence foods or other items (Table 4-3). Other less common reasons for barter included having extra subsistence food, the mutual needs of 2 parties, and because it is good luck to share. When asked to indicate the single most important reason they barter responses were more varied: 3 people said that they barter because someone else needed something, 2 said that they barter because they needed subsistence food, and another 2 said that they barter because both parties in the exchange needed something unspecified (Table 4-4).

Some key respondents referred to these reasons during their interviews. One mentioned that sometimes people he knows in Utqiagvik (Barrow) call him up to ask if he wants to barter. “They always call me up and say ‘You got any more whitefish? I got some seal oil. I got whale meat, I got whale blubber.’ Yeah, I got some whitefish, you know. We’re not selling it, we’re just trading” (110416VEE01). Another respondent said that people who have jobs commonly do not have time to go out and harvest resources themselves, so they will try to find a partner. “Some people, well, what they will do, they’ll say I have no time to go out hunting or fishing, but if I buy you 5 gallons of gas you can go out and then they’ll share, you know. I will get you some fish or something you know as long as you helped them out with gas, ‘cause gas is expensive up here” (110516VEE03). Another respondent talked about the same thing, from the other perspective: he goes out to harvest and then shares his harvest with those who give him gas (110416VEE05).

A respondent explained that bartering is sometimes a way of compensating someone for their help.

Sometimes if they do not have any food or something like that, it means they do not have any money so they will barter. They’ll have fish or they’ll have meat and ask for some help, maybe have fuel or something like that. If they do not have a 4-wheeler, you can go get some wood for them and then they’ll trade you some meat, and give you some meat just to compensate you, ‘cause that way they at least try to help you out. They do not feel like they are just getting charity or something like that. People want to help, want to give you something for a good gesture. Just help out. And it’s how it goes around here. (110515VEE03)

Others said people exchange resources to add more variety to their diets and to get items that are not available locally. “It’s different options, different options for your diet, you know. I am sure [Arctic Village residents] get tired of caribou, and we get tired of fish in the summer” (110416VEE04). One surveyed household said that household members barter for moose meat because moose are not as plentiful around Venetie as in other communities. Several survey respondents indicated that they barter with someone because that person is really good at harvesting, processing, or making a certain item, and they simply want some for themselves. Such desired items mentioned during data collection included jarred fish, dry fish, and jam.

At least one respondent barterers because health conditions prevent the respondent from being able to harvest what they need on their own. One survey respondent barterers because it is good luck to share your harvest, especially when someone asks you for something. This respondent also really likes the jam they receive in return for giving fish. Another reason to barter is to return a favor: “They offer me some food and then I was like, I’ll just accept it and then just give back to them, send them something else” (110416VEE05). In this

Table 4-3.—Reasons for bartering reported by respondents who have ever bartered, Venetie.

Reason	Number	Percentage ^a
We needed subsistence food	6	50%
Someone else needed subsistence food	6	50%
We needed something (not subsistence food)	3	25%
Someone else needed something (not subsistence food)	4	33%
We had some extra subsistence food	2	17%
Other reason ^b		
Both parties needed something	2	17%
It is good luck to share your harvest	1	8%

Source ADF&G Division of Subsistence household surveys, 2016.

Note Respondents could select more than one reason.

a. Percentage of respondents who have ever bartered.

Table 4-4.—Most important reasons for bartering, reported by respondents who have ever bartered, Venetie.

Reason	Number	Percentage ^a
We needed subsistence food	2	17%
Someone else needed subsistence food	3	25%
We needed something (not subsistence food)	1	8%
Someone else needed something (not subsistence food)	1	8%
We had some extra subsistence food	1	8%
Other reason ^b		
Both parties needed something	2	17%
It is good luck to share your harvest	1	8%
Most important reason not reported	1	8%

Source ADF&G Division of Subsistence household surveys, 2016.

a. Percentage of respondents who have ever bartered.

b. Reasons volunteered by respondents.

Table 4-5.—Frequency of bartering, reported by respondents who have ever bartered, Venetie.

Frequency	Number	Percentage ^a
More than once a year	7	58%
About once a year	4	33%
Almost never	1	8%

Source ADF&G Division of Subsistence household surveys, 2016.

a. Percentage of respondents who have ever bartered.

happen to acquire more or less of a resource than they need, they might approach someone else to suggest an exchange.

Ten survey respondents (83%) who barter said that they are never a “middleman”¹² in a barter transaction, and only 1 respondent reported rarely fulfilling this role (Table 4-6). In other words, when people receive an item through barter they typically do not exchange it again for another item from someone else. However, sometimes friends or family might help facilitate an exchange. For example, one key respondent mentioned a time he arranged to barter a wolverine skin for some Chinook salmon from Hoonah. Since a friend was traveling to Hoonah, the friend took the fur for him and brought back the salmon (110216VEE02).

Summary of Reported Barter Transactions

Respondents were asked to recall details about barter transactions in which they participated during the past year. All reported transactions are listed in Table 4-7, aspects of which will be summarized throughout this section. During the study year, 10 surveyed households took part in a total of 15 barter transactions (Table 4-8). Amounts of goods and resources exchanged were converted into dollars and pounds. Venetie respondents gave away an estimated total of 613 lb of wild foods and \$355 of market resources in exchange for 344 lb of wild foods and \$430 of other goods. The amount of resources exchanged per transaction ranged from less than 1 lb to 150 lb for edible wild resources and \$20 to \$280 for other market resources (Table 4-7). Most respondents only reported engaging in 1 barter transaction during the study year, and the maximum was 3 transactions (Table 4-9). Additionally, most respondents reported exchanging only 1 type of resource, but a few households exchanged 2 different types of resources. Three surveyed households bartered with someone who lives outside of Venetie.

Figure 4-3 depicts the number of times a resource or good was either given or received during the study year. The resources given away most frequently were Chinook salmon (4 times), caribou (3), and gasoline (3). No household reported giving away the same type of resource more than once (Table C4-2). Other resources given away less commonly included moose, chum salmon, geese, and ammunition. Caribou was received on 3 occasions, while Chinook salmon and ammunition were each received twice. Chinook salmon was the only resource received more than once through barter by any single respondent: it was received twice by a single household. Other items that were only received once included moose, ducks, coho salmon, berries, gasoline, cigarettes, and subsistence supplies (a tarp).

case, the respondent described an example of an exchange that began as sharing and later shifted to barter through the process of delayed reciprocity.

A little more than half of survey respondents said that they typically barter more than once a year, and about one-third said they only barter about once a year (Table 4-5). Members of one surveyed household said that they almost never barter currently, but they have in the past. Although some individuals engage in barter transactions on a regular or seasonal basis, many respondents characterized barter as occurring on a more circumstantial basis. For example, if another community member propositions these respondents with an exchange, then they might engage in the exchange just because they are asked. On the other hand, if they

Table 4-6.—Frequency of bartering resources received in barter, reported by respondents who have ever bartered, Venetie.

Frequency	Number	Percentage ^a
Never	10	83%
Rarely	1	8%
Not reported	1	8%

Source ADF&G Division of Subsistence household surveys, 2016.

a. Percentage of respondents who have ever bartered.

12. A “middleman” receives a resource from someone and then exchanges it for another resource from someone else.

Table 4-7.-Reported barter transactions, Venetie, 2015.

Resource	Giving					Receiving					Exchange partner			
	Processing	Amount	Units	Weight	Monetary value	Harvest location	Resource	Amount	Units	Weight	Monetary value	Transaction location	Residence	Relationship to respondent
Chum salmon	Frozen, processed		20 Individual	151.4 lb	-	Unknown	Caribou	1	Individual	130 lb	-	Venetie	Arctic Village	Friend
Chinook salmon	Fresh, unprocessed		9 Individual	135 lb	-	Venetie	Cigarettes	1	Carton	-	\$100	Venetie	Venetie	Friend
Chinook salmon	Fresh, unprocessed		4 Individual	60 lb	-	Venetie	Tarp	1	Individual	-	\$20	Venetie	Venetie	Friend
Chinook salmon	Fresh, unprocessed		7 Individual	105 lb	-	Venetie	Ammunition	3	Individual	-	\$60	Venetie	Venetie	Friend
Chinook salmon	Jarred, smoked		2 Half pint	0.8 lb	-	Venetie	Berries	1	Half pint	0.4 lb	-	Venetie	Venetie	Elder
Caribou	Dried		2 Gallons	7.5 lb	-	Venetie	Chinook salmon	4	Quarts	6.5 lb	-	Venetie	Fort Yukon	Friend
Caribou	Dried		1 Gallon	3.8 lb	-	Not reported	Chum salmon	4	Pint	3.3 lb	-	Venetie	Kaltag	Grandmother
Caribou	Smoked		1 Individual	97.5 lb	-	Venetie	Gasoline	30	Gallons	-	\$210	Venetie	Venetie	Sister
Moose	Not reported		10 Pounds	10 lb	-	Venetie	Baked goods	1	Loaf	-	-	Venetie	Venetie	Elder
Moose	Dried		2 Gallons	7.5 lb	-	Venetie	Chinook salmon	4	Quarts	6.5 lb	-	Venetie	Fort Yukon	Friend
Unspecified geese	Unprocessed		6 Individual	34.8 lb	-	Venetie	Ammunition	2	Individual	-	\$40	Venetie	Venetie	Cousin
Ammunition	N/A		2 Individual	-	\$40	N/A	Unspecified ducks	4	Individual	7.5 lb	-	Venetie	Venetie	Friend
Gasoline	N/A		40 Gallons	-	\$280	N/A	Moose	60	Pounds	60 lb	-	Venetie	Venetie	Extended family
Gasoline	N/A	Not reported	Gallons	-	-	N/A	Caribou	Not reported	Not reported	-	-	Venetie	Venetie	Not reported
Gasoline	N/A		5 Gallons	-	\$35	N/A	Caribou	1	Individual	130 lb	-	Venetie	Venetie	Friend

Source: ADF&G household surveys, 2016.

Table 4-8.–Summary of reported barter transactions, Venetie, 2015.

Total number of barter transactions reported	15
Number of households that reported barter transactions	10
Percentage of barter transactions between Venetie residents	73%
Resources given	
Total weight of wild resources given	613 lb
Range of weight given per transaction	<1 lb to 151 lb
Total value market resources given	\$355
Range in value of market resources given per transaction	\$35 to \$280
Resources received	
Total weight of wild foods received	344 lb
Range of weight received per transaction	<1 lb to 130 lb
Total value of market resources received	\$430
Range in value of market resources received per transaction	\$20 to \$210

Source ADF&G Division of Subsistence household surveys, 2016.

Table 4-9.–Reported barter transactions at the household level, Venetie, 2015.

Number of households reporting barter transactions	10
Percentage of surveyed households reporting barter transactions	38%
Number of households bartering with other communities	3
Percentage of bartering households exchanging with another community	30%
Average number of barter exchanges per bartering household	1.50
Range in number of exchanges per household	1 to 3

Source ADF&G Division of Subsistence household surveys, 2016

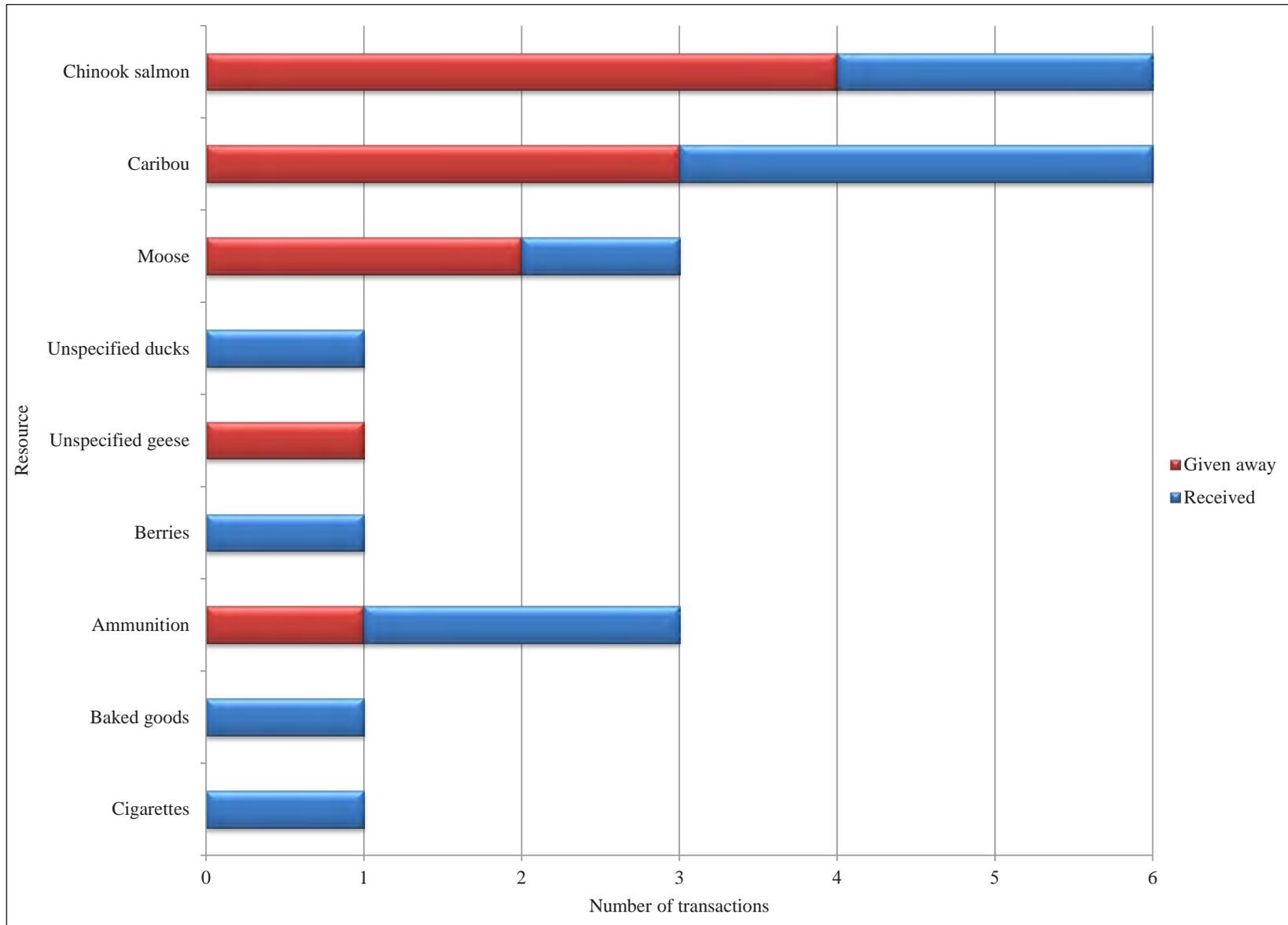


Figure 4-3.—Number of reported barter transactions by resource, Venetie, 2015.

Table 4-10.—Resources considered to be exchanged most often, Venetie.

Resource	Responses
Chinook salmon	
Fresh, unprocessed	1
Unspecified salmon	
Fresh, unprocessed	1
Not reported	1
Caribou	
Fresh, unprocessed	1
Dried	2
Moose	
Fresh, unprocessed	3
Fresh, processed	1
Unspecified large land mammals	
Not reported	1
Wood	
Long logs	2
Gasoline	
N/A	3

Source ADF&G Division of Subsistence household surveys, 2016.

Note 16 of 26 respondents provided a response.

Because the surveyed households were a small sample of the community and because the survey only focused on transactions that happened in a 1-year period, respondents were also asked to think about the community in general and to indicate the resource they felt is typically exchanged most often. Although the top results included the same resources and goods as transactions that occurred during 2015, the results were in a slightly different order. Of 16 responses, 4 were for moose, 3 for gasoline, 3 for caribou, and 3 for salmon (Table 4-10).

Table C4-2 summarizes the total pounds or dollar value of each exchanged resource. Figures 4-4 and 4-5 show the proportion, by weight, that each resource contributed to the total weight of resources given and received. Chinook salmon composed 49% of the edible pounds given away in barter, chum salmon made up 25% (even though only 1 transaction was reported), and caribou made up 18%. Caribou composed 76%¹³ of the weight of wild foods received during barter, and moose made up 17%. Overall, more pounds of fish were given away than meat, and more pounds of meat were received than fish. Respondents were asked to report how the edible resources they gave away were processed (Table 4-11). The 2 most frequently exchanged resources were dried caribou and unprocessed Chinook salmon. Other resources were processed and exchanged in a variety of forms including smoked and jarred Chinook salmon, frozen chum salmon, unprocessed

geese, and both dried and frozen moose meat.

The actual items exchanged in the reported barter transactions are depicted with double arrows between them in Figure 4-6. Each pair of resources was only exchanged once, except for caribou and gasoline, which were exchanged 3 times. Two key respondents talked about the exchange of gas for meat, one of whom regularly accepts gas from others so that he can hunt moose and caribou. He then shares his harvest with those who gave him gas, even if it takes some time before he has a successful harvest (110416VEE05).

Figure 4-7 represents the flow of resources from giver to receiver and the residence of each party. Barter transactions are represented by solid arrows the width of which corresponds to the number of times the resource was exchanged. With the exception of Kaltag, respondents bartered with others from communities in proximity to Venetie. Three barter transactions were with people from communities that have historical and familial ties to Venetie. Moose and caribou from Venetie were exchanged for Chinook salmon from Fort Yukon, and chum salmon from Venetie was exchanged for caribou from Arctic Village (Table 4-7). One respondent exchanged caribou for chum salmon from Kaltag. Although exchanges happened with people who live in other communities, survey respondents reported that all barter transactions took place in Venetie. The survey did not include options for reporting exchanges that occurred via plane or mail, which key respondents noted as a common means of exchanging items. The location of exchanges that took place by plane or mail was coded to the residence of the respondent.

Survey respondents indicated that 7 of the 13 barter transactions in which they participated during the prior year took place with friends (Table C4-4). Four transactions involved family members and 2 exchanges were with elders.

In addition to the survey data, key respondents recalled a number of barter exchanges in which they had participated over the years, some of which have already been mentioned. Residents of Venetie have sent wolf skins to Kaktovik in exchange for muktuk (110216VEE02); whitefish to Utqiagvik (Barrow) in

13. Caribou likely composed an even greater percentage, but there was no amount reported for 1 of the transactions during which it was received.

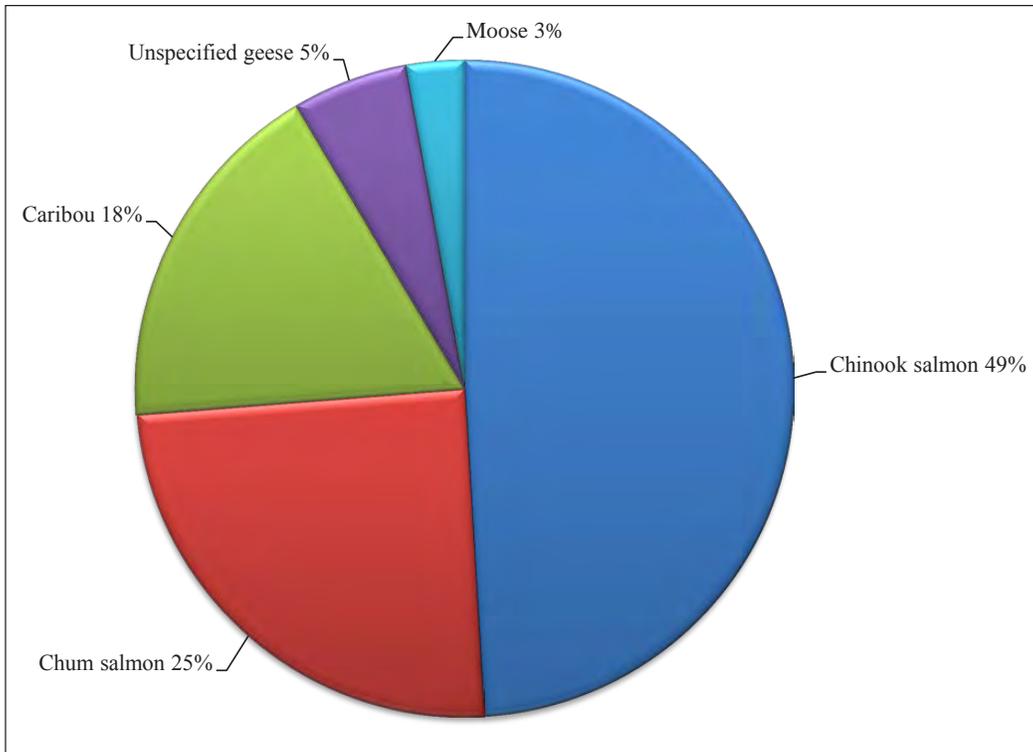


Figure 4-4.—Composition of wild resources given during barter, by weight, Venetie, 2015.

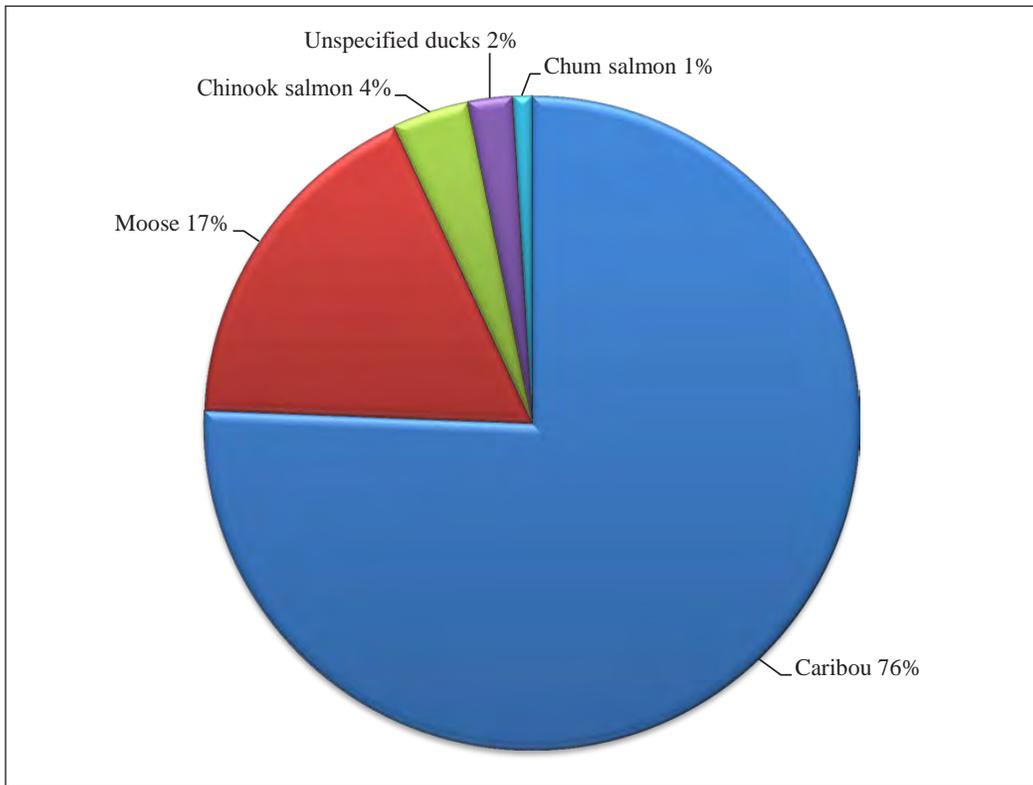


Figure 4-5.—Composition of wild resources received during barter, by weight, Venetie, 2015.

Table 4-11.—Reported processing of wild resources given during barter, Venetie, 2015.

Resource processing	Number of transactions
Chum salmon	
Frozen, processed	1
Chinook salmon	
Fresh, unprocessed	3
Jarred, smoked	1
Caribou	
Dried	3
Moose	
Dried	1
Frozen, processed	1
Geese	
Fresh, unprocessed	1

Source ADF&G Division of Subsistence household surveys, 2016.

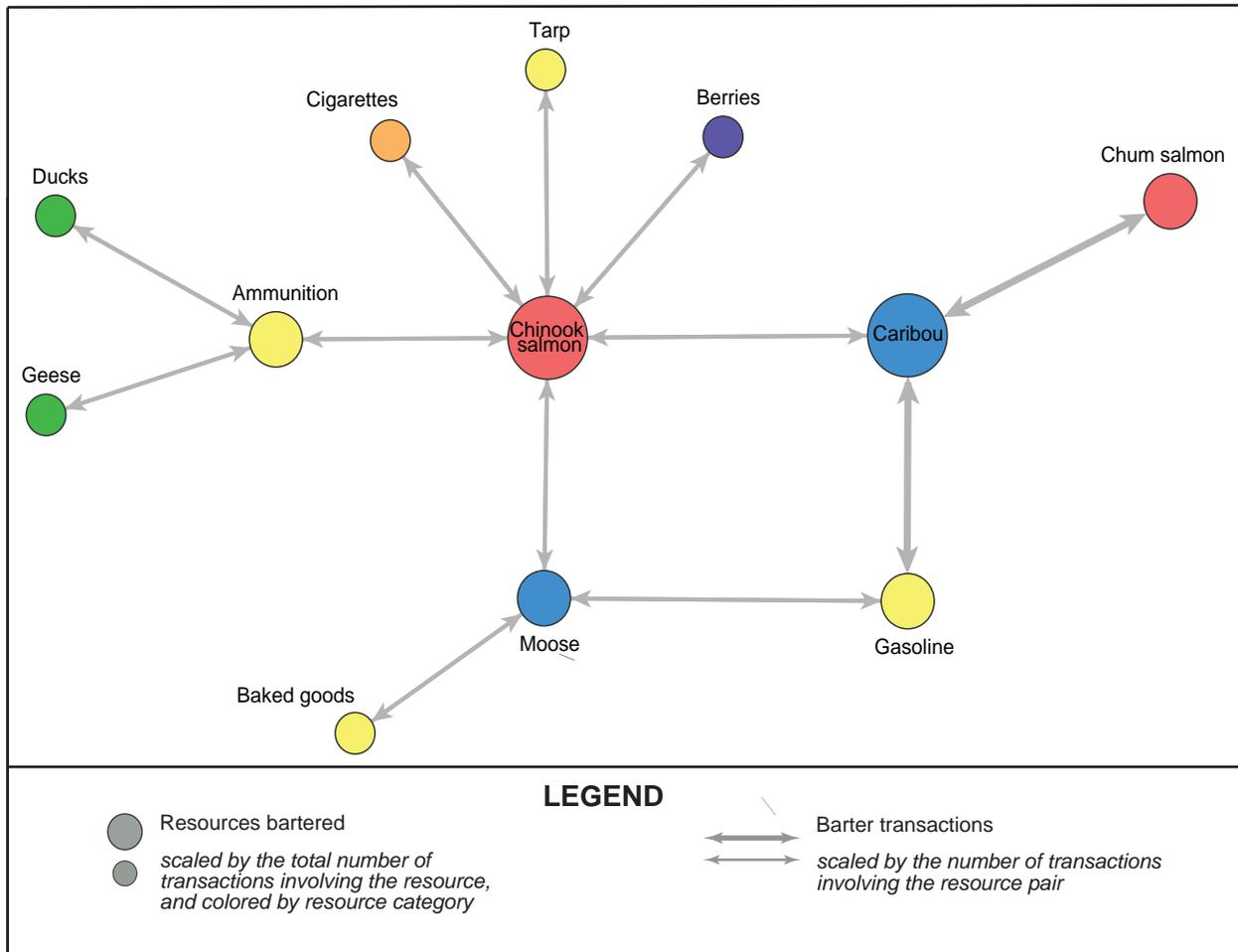


Figure 4-6.—Network of resources exchanged in barter transactions, Venetie, 2015.

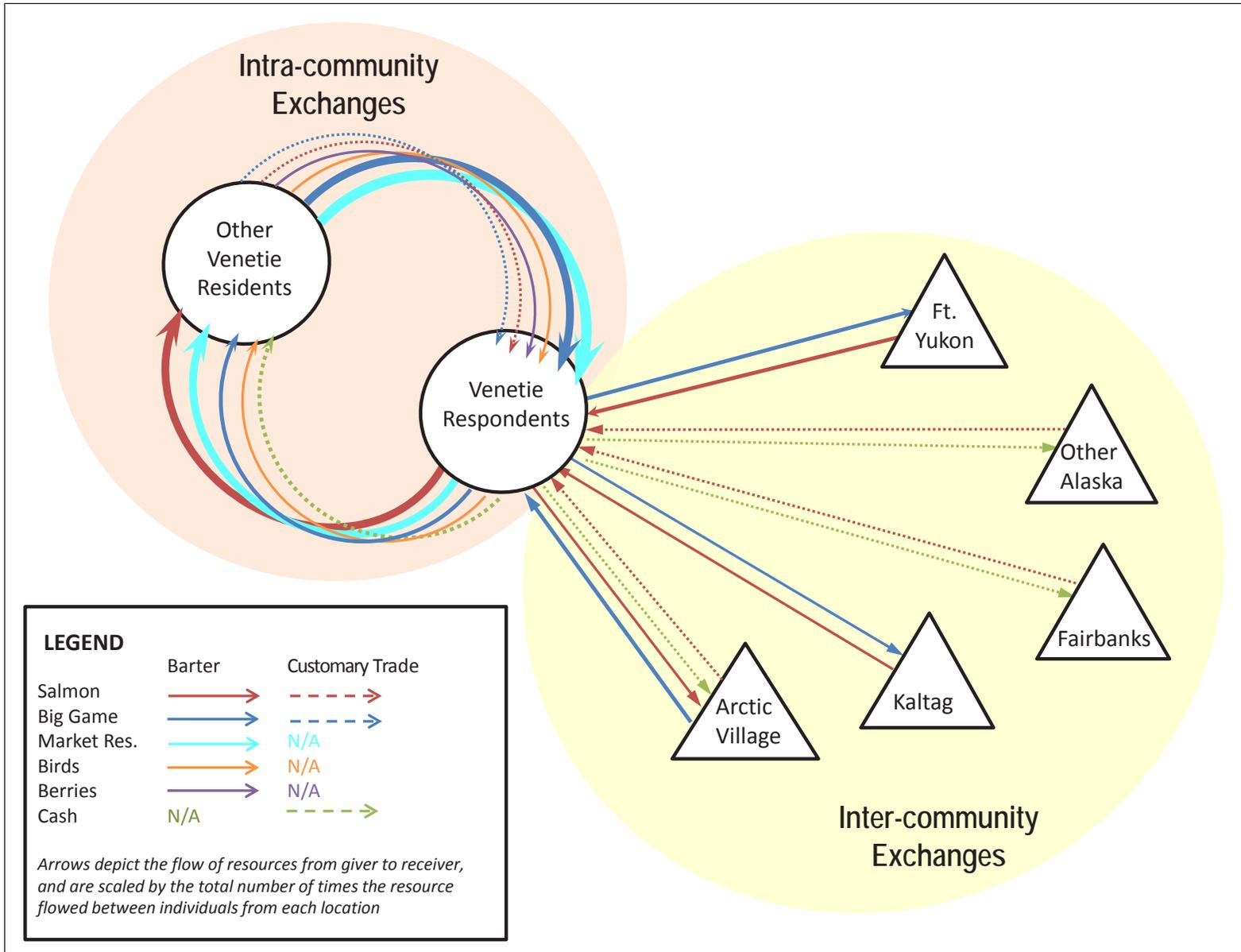


Figure 4-7.—Barter and customary trade network by location and resource, Venetie, 2015.

exchange for muktuk and seal oil (110416VEE01); Chinook salmon to Birch Creek in exchange for moose (110416VEE04); a wolverine skin to Hoonah in exchange for Chinook salmon (110216VEE02); caribou and moose to Fort Yukon in exchange for salmon (110416VEE01, 110516VEE03); fur to Anchorage in exchange for berries (110216VEE02); beavers, ducks, chum salmon, and Chinook salmon to Arctic Village in exchange for caribou and whitefish (110416VEE01, 110416VEE04, 110416VEE05). Within Venetie, they have exchanged berries, gas, caribou, moose, and salmon (110516VEE03, 110416VEE04, 110416VEE05). Skins, beaded items, and sewing are also exchanged between families although the respondent did not provide specifics (110216VEE01). This extensive list represents only a small sample of households and some of the transactions in which they have engaged, so it is likely that barter networks are even more widespread than presented here.

Respondents mentioned a variety of ways that barter relations can become established. Sometimes barter relationships are maintained between families for generations, sometimes new connections are made through personal and business travel, and sometimes people even barter with friends with whom they connect through Facebook. One respondent said that exchange networks are always expanding as people move outside the community or marry people from other communities (110516VEE03).

CUSTOMARY TRADE

Local Characterization of Customary Trade

Customary trade refers to the exchange of subsistence resources for “minimal amounts of cash” (AS 16.05.940(8)); and although the law does not list specific limitations, it does state that transactions must be “non-commercial.” In other words, individuals cannot make a business out of selling subsistence resources. As with barter, Venetie respondents did not use the term “customary trade” to describe this type of transaction; rather, they simply called it “selling.” One respondent said the term “bargaining” could be used (110416VEE05). Venetie residents expressed a wide range of feelings about customary trade. One key respondent said, “If you go back, years back, our elderly doesn’t really want to trade, I mean doesn’t really want to sell anything” (110416VEE01). He explained that the land and resources belong to everyone and suggested that trying to personally profit from communal resources is frowned upon. However, another respondent remembered that when he was a child, people would sell bales of dry fish in Fort Yukon at the Northern Commercial Company store (110216VEE02). When asked if Venetie residents sell small amounts of subsistence foods today, this respondent said, “I imagine it might, they might, it might happen, but you know I haven’t seen it. I never saw it. This is like a sharing community too so if somebody needs something you know, we got it, we’ll give it to them” (110216VEE02). Another respondent corroborated this by saying, “Trading for cash, I know a lot of people kind of don’t like that. They kind of think you are selling something. That’s kind of taboo here” (1104VEE1604).

Both survey and interview respondents agreed that selling subsistence resources purely for profit was not acceptable, and no one described this type of transaction taking place within the community. Some respondents described the occasional selling of small amounts of resources to help cover expenses, but even in limited amounts, not everyone agreed with the practice. Residents of Venetie described the exchange of gas, or money for gas, for a share of the harvest as a commonly accepted practice. Even though cash is being exchanged in this circumstance, it serves as a contribution to the harvest effort because it is used to buy necessities such as gas or equipment. Previous research on wild food exchange networks in Venetie found that 14% of the wild food that enters households in the community is received through a similar type of transaction, what researchers called “helper shares” (Kofinas et al. 2016).

As described in the Introduction, customary trade is regulated differently by state and federal governments (Pappas 2012), potentially creating confusion for customary trade participants about the legality of their transactions. During fieldwork in Venetie, one respondent conveyed uncertainty about regulations involving customary trade and concern for how agencies interpret the practice:

I don't know how the State Fish and Game and Federal Fish and Game look at it, but if it's against the law to sell all your subsistence, or what do you call, harvesting and all, against the law doing that, if they see us doing that they interpret it in different ways and look at us in a different way, and they start changing all the regulation. But I think all our food, what we use from our land, what we use is just get what you want, just as much as what's going to get you through for the winter. That's all. We're not doing overkill. (110416VEE01)

There is heated debate in both rural and urban Alaska about whether or not the sale of subsistence goods should be allowed, and if so, within what parameters. Some speculate that customary trade is a façade under which people can easily conceal large-scale selling operations (Demer 2015). Because of such accusations and social stigmas against it, people who participate in customary trade could be less inclined to talk about it.

One survey respondent commented, “indigenous lifestyle involves integrity. We don't waste like they do with bycatch in the high seas fishery. Ninety-nine percent of our population does not abuse the system [but] there are always buttheads in every population who break rules.” He continued, “it is too bad that a few bad people give everyone else a bad rap.” This respondent refuses to hunt with people who might sell what they harvest because “subsistence isn't a business.” This sentiment against selling was echoed by a key respondent who said, “I'm not that greedy. I don't want to start getting into all the other things. Just gas is all I need. I don't want no money or nothing” (110416VEE05). Another key respondent also said that if others need meat, he would help them by sharing but not sell to them (110515VEE03).

During interviews, key respondents discussed how low salmon runs and heavily restricted fishing have affected customary trade. A key respondent said he thinks that there is less trading of salmon because the availability of the resource is limited. He said, “I still see people trading and selling and trading for cash here and there but not, not very many” (110416VEE04).

Participation in Customary Trade

Eight respondents (31% of survey participants) said they participate in customary trade; these respondents have been doing so for an average of approximately 5 years (Table 4-12). The reasons for participating were many and varied, although the survey did not ask respondents to distinguish separate reasons for why they might buy or sell subsistence resources. Five respondents were motivated to participate in customary trade because someone else needed something (including cash; Table 4-13). Four respondents said that personally needing a subsistence food was why they participated in customary trade. Additional reasons that were listed less often included needing something besides subsistence food (2 respondents), someone else needing subsistence food (2), needing cash (1), or having extra food (1). The most important reasons that respondents said they trade were slightly less varied; 4 respondents indicated that they traded because someone else needed cash or something besides subsistence food, 1 needed a subsistence food, and 1 needed something besides subsistence food (Table 4-14).

Table 4-12.—Participation in customary trade, Venetie.

All respondents	
Number of respondents who have ever traded	8
Percentage of respondents who have ever traded	30.8%
Respondents who trade	
Average number of years since first trade	5.25
Range of years since first trade	<1 to 10
Average number of reported reasons for trading	2

Source ADF&G Division of Subsistence household surveys, 2016.

Table 4-13. –Reasons for customary trade, reported by respondents who have ever traded, Venetie.

Reason	Number	Percentage ^a
We needed subsistence food	4	50%
Someone else needed subsistence food	2	25%
We needed something (not subsistence food)	2	25%
Someone else needed something (not subsistence food)	5	63%
We had some extra subsistence food	1	13%
We needed extra cash	1	13%

Source ADF&G Division of Subsistence household surveys, 2016.

a. Percentage of respondents who have ever traded.

Table 4-14. –Most important reasons for customary trade, reported by respondents who have ever traded, Venetie.

Reason	Number	Percentage ^a
We needed subsistence food	1	17%
We needed something (not subsistence food)	1	17%
Someone else needed something (not subsistence food)	4	67%

Source ADF&G Division of Subsistence household surveys, 2016.

a. Percentage of respondents who have ever traded.

Key respondents expanded upon the reasons listed on the survey. When asked if people ever offer to buy what someone else has if they do not have anything to give in return, one respondent said:

It could be understandable if you have to buy it. I mean if you don't get your moose and then you look somewhere else and call your friends, "Hey, can I buy moose meat from you since I didn't get my moose?" "Sure I got some few more you know, sure." They'll do it, you know. They won't charge you as much because you gotta put it on a plane and then you gotta pay for the freights and you know all this little stuff you gotta go with it...They buy it for this much, you know, if you have this little money. "Yeah, I need a little money too, so maybe you can send me cash and I'll send you this little stuff you know." They just, it's part of sharing and part of the money. It's gotta be there. (110416VEE01)

In a customary trade transaction, the person setting the price likely varies depending on the relationship between the parties and the reason for the transaction. A common reason for purchasing subsistence foods mentioned by respondents was the inability to obtain them on their own, either because they cannot take time off of work, they live in town, health reasons, the resource is not available locally or is difficult to obtain, or because they just did not have a successful harvest. One respondent said he buys salmon from people he knows in Fort Yukon "...because they get more fish down the river than we do. Plus, it's more better fish than we get here" (110516VEE05). He mentioned typically buying salmon in the winter when the resource is more difficult to obtain. The most common reason mentioned on the survey for customary trade was because "someone else needs something," but ethnographic respondents did not discuss this reasoning.

Respondents described selling subsistence resources much less frequently than buying. Only one key respondent mentioned personally selling resources, saying that he sometimes sells bags of dry fish for a little cash to help keep fishing going. "A lot of times while we're hanging strips and stuff like that you know, we'll trade out to get supplies, freezer bags and salt or whatever we can" (110416VEE04). Another respondent commented that he only sees selling on occasion.

Well, I know some people will get a little dry meat once in a while and they'll send it over and trade for strips. Or just like how people down there will have like a lot of salmon strips and then they'll take it to make some money to help them out with their traveling costs and stuff like that, so they do the same thing once and awhile. Some people will make dry meat and bag it up and sell for traveling costs to help them out when they go to the town for like cabs and stuff like that. (110516VEE03)

Of the 8 survey respondents who engaged in customary trade, half said they usually do so more than once a year, while the remainder did so less frequently or almost never (Table 4-15). This portion of the survey did not ask participants to compare the frequencies of buying and selling. No respondents reported acting as a middleman during customary trade exchanges (Table 4-16).

Table 4-15.—Frequency of customary trade, reported by respondents who have ever traded, Venetie.

Frequency	Number	Percentage ^a
More than once a year	4	50%
About once a year	2	25%
Almost never	2	25%

Source ADF&G Division of Subsistence household surveys, 2016.

a. Percentage of respondents who have ever traded.

Table 4-16.—Frequency of trading resources received in customary trade exchanges, Venetie

Frequency	Number	Percentage ^a
Never	7	88%
Unknown	1	11%

Source ADF&G Division of Subsistence household surveys, 2016.

a. Percentage of respondents who have ever traded.

Summary of Reported Customary Trade Transactions

Survey respondents provided details about the buying and selling transactions in which they were involved during 2015. A list of all reported transactions can be found in Table 4-17. During the study year, 5 households each reported 1 customary trade transaction, all of which involved buying resources and not selling them (Figure 4-8; tables 4-18 and 4-19). An estimated total of 200 lb of wild foods were bought for \$108. Three households purchased Chinook salmon, but only 2 provided information about the amount they purchased: a total of 6 lb for \$60 (Table C4-5). Approximately 101 lb of caribou was purchased by 2 households for \$140. Caribou accounted for 94% of the resources purchased by weight (Figure 4-9). One transaction involved most of the meat from a frozen caribou, but Chinook salmon was only purchased in small amounts as strips (Table 4-20).

Appendix Table C4-6 shows the social relationships between parties involved in customary trade. Figure 4-6 represents the flow of resources geographically, and Table C4-7 details those transactions. One of the 2 Chinook salmon purchases occurred within Venetie between friends, and the respondent paid \$20 for 1 quart of strips (Table 4-12). The other transaction took place in Fairbanks, where the respondent purchased 1 gallon of strips for \$40 from an unacquainted person. One other respondent said their household purchased Chinook salmon, but did not give any additional information about the transaction. However, this respondent did mention often purchasing salmon from Kaltag or Rampart. Of the 2 households that purchased caribou, one bought it from a friend who lives in Venetie but who had harvested the caribou near Arctic Village. This respondent paid \$40 for 1 gallon of dry meat. The other respondent purchased the butchered and frozen meat of 1 caribou from a friend who lives in Arctic Village for \$100. From these transactions it appears that more money is exchanged for processed foods such as salmon strips and dry meat than for unprocessed foods. A key respondent mentioned that “people always buy wood around here. Wood is like \$50 to \$100 a load” (110416VEE05). Wood was not mentioned on surveys or in other interviews, perhaps because the survey focused on wild foods.

In Figure 4-7, customary trade purchases are represented by dashed arrows that depict the inflow of resources from others to the survey respondents, and alternatively, the flow of cash from respondents to others. Since there are no duplicate transactions (i.e., the same resource purchased from the same location), each dashed resource arrow represents a single transaction. Although survey respondents reported customary trade only within Venetie and with people from Arctic Village and Fairbanks, the customary trade network likely expands beyond these communities. Respondents mentioned that fish can be purchased from downriver communities where it is easier to obtain. One key respondent said that someone wanting to purchase fish can look up people they know in the phone book from Fort Yukon, Beaver, or Stevens Village and call to see if they know of anyone selling fish (110416VEE05). A survey respondent commented, “You can just ask around in Fairbanks, network with people to find out who is selling fish in what villages. They’ll trade, sell just about anything in Fairbanks, whatever you want.”

CONCLUSION

Half of the 26 survey respondents said that they do not participate in either barter or customary trade (Figure 4-10; Table C4-8). Of the half that do engage in these transactions, 7 respondents said they participate in both, 5 only participate in barter, and 1 only participates in customary trade. During the study year, respondents reported 15 barter transactions and only 5 customary trade exchanges (Table 4-12). Key respondents provided many examples of barter that expanded beyond the survey data. Barter was characterized as a relatively common practice, occurring between Venetie residents and with people from many other communities, and involving a wide range of subsistence resources.

Alternatively, fewer people discussed customary trade, and several respondents did not approve of selling subsistence resources. Others were more neutral about the practice if selling occurred on a limited or occasional basis, and if traders were not making large profits. Respondents did not consider receiving money for gas or other supplies in return for a share of the harvest to be customary trade, instead characterizing such an exchange as a contribution to the harvest. No respondents reported selling resources during the study year (Table 4-12), and only 1 key respondent provided a personal example of selling; he sells small amounts

Table 4-17.—Customary trade transactions, Venetie, 2015.

Resource	Processing	Amount	Units	Weight	Price	Location		Exchange partner	
						Harvest	Transaction	Residence	Relationship to respondent
Buying transactions									
Chinook salmon	Strips	1	Gallons	4.8 lb	\$40.00	Missing	Fairbanks	Not reported	No acquaintance
Chinook salmon	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported
Unspecified salmon	Strips	1	Quarts	1.25 lb	\$20.00	Venetie	Venetie	Venetie	Friend
Caribou	Frozen, unprocessed	0.75	Individual	97.5 lb	\$100.00	Arctic Village	Venetie	Arctic Village	Friend
Caribou	Dried	1	Gallons	3.75 lb	\$40.00	Arctic Village	Venetie	Venetie	Friend

Source ADF&G household surveys, 2016.

Note No selling transactions were reported.

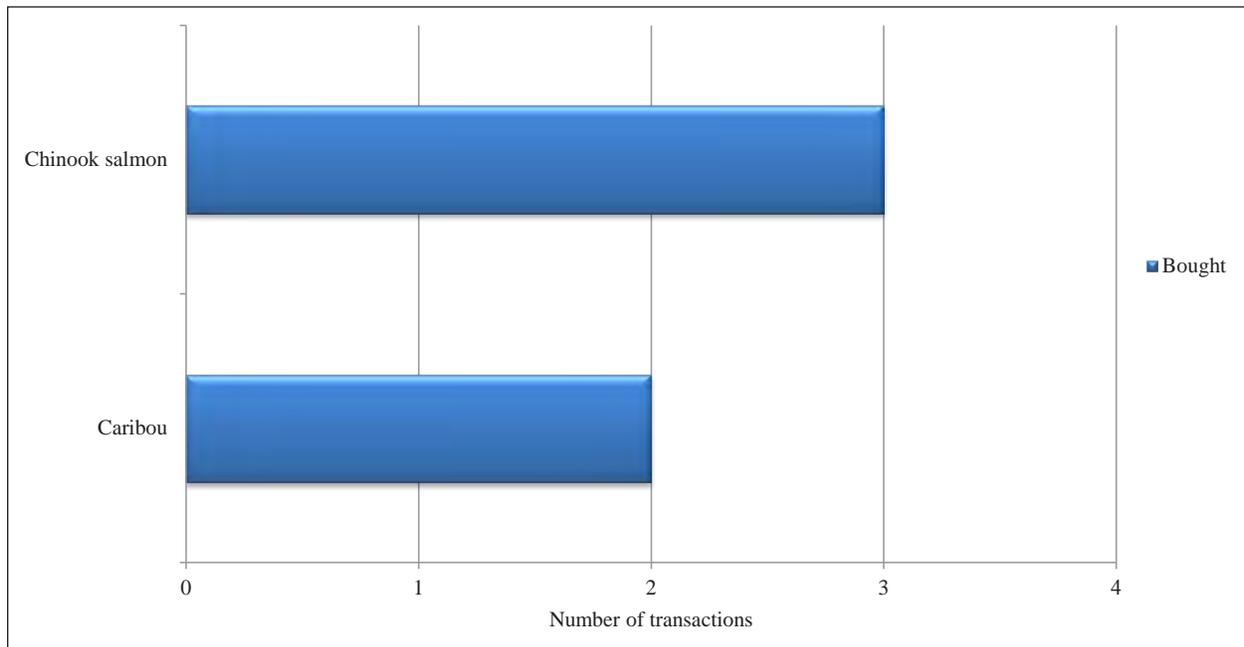


Figure 4-8.—Number of customary trade transactions by resource, Venetie, 2015.

Table 4-18.—Summary of reported customary trade transactions, Venetie, 2015.

Number of reported customary trade transactions	5
Number of households that reported customary trade transactions	5
Buying transactions	
Number of buying transactions	5
Percentage of all transactions	100%
Total amount spent in buying transactions	\$108
Range of amount per transaction	\$20 to \$100
Total weight of wild foods bought	200 lb
Range of weight per transaction	1 lb to 98 lb
Percentage of buying transactions between Venetie residents	40%
Selling	
Number of selling transactions	0

Source ADF&G Division of Subsistence household surveys, 2016.

Table 4-19.—Reported customary trade transactions at the household level, Venetie, 2015.

Number of households reporting customary trade transactions	5
Percentage of surveyed households reporting customary trade transactions	19%
Average number of transactions per trading household	1.0
Range in number of transactions per trading household	N/A
Buying transactions	
Number of households reporting buying transactions	5
Number of buying transactions	5
Average number of buying transactions per buying household	1.0
Number of households buying from another community	2
Percentage of buying households buying from residents of another commu	40%
Selling transactions	
Number of households reporting selling transactions	0

Source ADF&G Division of Subsistence household surveys, 2016.

Table 4-20.—Reported processing of resources exchanged during customary trade transactions, Venetie, 2015.

Resource	Number
	Buying transactions
Chinook salmon	
Strips	2
Caribou	
Frozen, unprocessed	1
Dried	1

Source ADF&G Division of Subsistence household surveys, 2016.

Note No selling transactions were reported.

of salmon strips to help pay for fishing supplies (110416VEE04). No respondents negatively characterized the purchase of subsistence resources from others; in fact, 5 respondents described purchasing resources during the study year. Purchased resources only included Chinook salmon and caribou, both of which have limited local availability. This suggests that purchasing subsistence resources may be more common and more socially acceptable than selling them. This finding is in opposition to a previous exchange study in Venetie which found that households more commonly obtained foods by purchasing than by bartering, although neither was common overall (Kofinas et al. 2016).

Reasons for exchanging resources through barter were similar to those for customary trade: respondents want or need something that they are unable to obtain themselves, someone else has easier access to a resource or has extra of it, or someone makes or processes a certain item especially well (tables 4-3 and 4-14). The exchange of resources can be planned or opportunistic. Exchanges can also begin as sharing and evolve into barter or customary trade through reciprocity.

Within the large and complex resource distribution network in Venetie, barter and customary trade are just 2 means by which subsistence resources are exchanged. As pointed out by key respondents and in previous research, these methods of exchange are part of a widespread system of sharing that is grounded in deeply rooted ethics and should be understood in conjunction with this system.

ACKNOWLEDGEMENTS

Our sincere gratitude is extended to the Native Village of Venetie Tribal Government and to the Village of Venetie for their approval and facilitation of this research. This study would not have been possible without all of the community members who donated their time to participate in the surveys and ethnographic interviews. Thank you for sharing your experiences, customs, and knowledge with us. We would also like to extend a special thanks to our local research assistants, who helped arrange surveys and guided us around the community. The Village Office kindly shared their space and their coffee with us during fieldwork, which was much appreciated. We would also like to acknowledge the staff at John Fredson School for making us feel at home during our stay and for inviting us to talk to your students about our work.

5. DISCUSSION AND CONCLUSIONS

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SOME CHALLENGES OF “CUSTOMARY TRADE”

Customary trade of Yukon River salmon, specifically Chinook salmon, is at the center of hotly contested debates over the allocation of a declining resource. Although Moncrieff (2007) documented the history of customary trade in the Yukon Area, the nature, levels, practice, and frequency of customary trade along the Yukon River have not been quantitatively described. As a result, public discourse on customary trade relies on assumptions and anecdote, oversimplifying the practice through space and time, and often defining the practice through extreme or false examples. According to one respondent in this study, “Indigenous lifestyle involves integrity...Ninety-nine percent of our population does not abuse the system...it is too bad that a few bad people give everyone else a bad rap” (110416VEE05). The current politicization of Yukon salmon makes it difficult to document exchange practices, while the lack of systematic quantitative and qualitative data makes it difficult to properly manage customary trade. There is a need to understand the variability of customary trade practices through time and the relation of these practices to a larger continuum of exchange.

In the Yukon Area, users themselves have different views on customary trade. In ethnographic interviews, many community residents, especially elders, expressed discomfort with the idea of “selling” (that is, exchanging for cash) subsistence resources in any amount. Ethically, they understood selling resources to be contrary to community and personal values. Wolfe (1981) describes this sentiment for lower Yukon River communities. He notes that individuals were often reluctant to track the details of any exchange because it violated beliefs about sharing: all exchange is bound by the values of community care surrounding giving and receiving, and keeping track is a public indication that one party does not understand those values. For example, one survey respondent explained that needing wild foods is “part of the culture,” and that bartering with others is a way to “look out for other people.” Indeed, when listing reasons for engaging in barter or customary trade, respondents often pointed to knowing that someone else needed food as a strong motivation (Tables 5-1 and 5-2).

However, the sale of strips of subsistence-caught Chinook salmon has been a source of income to fishers along the entire river for generations (Moncrieff 2007). Conflicting community sentiments, a continuum of exchange practices, conflicts between state and federal regulations, conflicts between state law and state regulation, and occasional enforcement actions have left many residents of the river feeling criminalized for traditional practices. Earlier research (Brown et al. 2015) coincided with a U.S. Fish and Wildlife Service (USFWS) enforcement investigation into customary trade practices along the Yukon River; the investigation was conducted in response to complaints that individuals were selling processed salmon from subsistence harvests in amounts that exceeded (undefined) noncommercial levels (Pappas 2012:34).

Some respondents described the occasional selling of small amounts of resources, but not everyone agreed with the practice, even in limited amounts. This sensitivity was integrated into the early stages of the research when the Gwichyaa Zee Tribal Government thoroughly critiqued the interview instrument and provided guidance into how researchers asked questions to minimize insult to those individuals sensitive to exchanging subsistence resources for cash.

For all the reasons above, we have some concerns about the completeness of the quantitative data set summarized in this report. Regulations regarding customary trade are not well understood, and many study participants expressed anxiety about answering questions regarding any involvement in customary trade. As a result, we suspect a general underreporting of total activity or participation in customary trade. Nonetheless, similar to an earlier attempt to gather quantitative information about customary trade (Brown et al. 2015) we believe the data are sufficient to characterize general patterns and traditional values surrounding the exchange of fish for cash in participating communities.

Table 5-1.—Barter summary, study communities.

	Fort Yukon		Manley Hot Springs		Venetie	
	Number	Percentage	Number	Percentage	Number	Percentage
Respondents who have ever bartered	32	49.2%	13	52.0%	12	46.2%
Number of barter exchanges during study year	45	-	12	-	15	-
Frequency of barter ^a						
More than once a year	15	47%	9	69%	7	58%
About once a year	7	22%	2	15%	4	33%
Less than once a year	4	13%	2	15%	0	0%
Almost never	2	6%	0	0.0%	1	8%
Not reported	4	13%	0	0.0%	0	0%
Reasons for barter ^a						
We needed subsistence food	23	72%	8	62%	6	50%
Someone else needed subsistence food	23	72%	10	77%	6	50%
We needed something (not subsistence food)	10	31%	5	38%	3	25%
Someone else needed something (not subsistence food)	8	25%	5	38%	4	33%
We had some extra subsistence food	12	38%	10	77%	2	17%
Other reason	3	9%	1	8%	3	25%

Source ADF&G Division of Subsistence household surveys, 2015 and 2016.

a. Percentage of respondents who have ever bartered.

In this chapter, we review Alaska’s laws and regulations on customary trade. We discuss exchange theory to provide a broader context. From these foundations, we review current and recent trade practices, and then summarize factors that might be considered when managing customary trade in the Yukon Area.

CUSTOMARY TRADE IN LAW AND REGULATION

In the original subsistence law in 1978, and in revisions in 1986 and 1992, the Alaska Legislature defined customary trade as one of a number of “subsistence uses” (AS 16.05.940 (33)). In 1980, the U.S. Congress adopted almost identical subsistence provisions in Title VIII of the Alaska National Interest Lands Act (ANILCA). In 1992, the Alaska Legislature added a specific definition of customary trade: “the limited noncommercial exchange, for minimal amounts of cash, as restricted by the appropriate board, of fish or game” (AS 16.05.940 (8)). When the Board of Fisheries recognizes subsistence uses on a particular fish stock, it also reviews existing regulations or adopts new regulations to provide a reasonable opportunity for subsistence uses. In the case of customary trade, however, the Board of Fisheries did not initially adopt any regulations allowing customary trade. Board of Fisheries regulations at 5 AAC 01.010(d) and 5 AAC 02.010(b) prohibit the sale of subsistence-taken fish and shellfish except as specifically allowed under state regulations. Therefore, although customary trade has been recognized as a potential subsistence use, further clarification is necessary to determine the parameters in which customary trade can legally take place in any particular subsistence fish stock; however, under state law the Board is not required to allow customary trade of fish stocks taken for subsistence uses; they may do so if evidence shows that customary trade is a traditional use of a particular stock. Thus far, the Board has only passed customary trade regulations for specific species in specific geographic areas through deliberation of proposals brought before the Board which resulted in customary and traditional use findings for those practices.

Some respondents in this study expressed confusion about the legality of customary trade. Some of this confusion likely stems from the fact that although customary trade is recognized as a subsistence use in state law, regulations are absent for customary trade on the Yukon River in state waters. However, federal regulations do allow customary trade of salmon caught in federal waters, including those located along the Yukon River (50 CFR § 100.27).

Table 5-2.—Customary trade summary, study communities.

	Fort Yukon		Manley Hot Springs		Venetie	
	Number	Percentage	Number	Percentage	Number	Percentage
Respondents who have ever participated in customary trade	25	38.5%	9	36.0%	8	30.8%
Number of customary trade exchanges during study year	20	-	12	-	5	-
Frequency of customary tradea						
More than once a year	10	40%	6	67%	4	50%
About once a year	6	24%	3	33%	2	25%
Less than once a year	6	24%	0	0%	0	0%
Almost never	1	4%	0	0%	2	25%
Not reported	2	8%	0	0%	0	0%
Reasons for customary tradea						
We needed subsistence food	13	52%	9	100%	4	50%
Someone else needed subsistence food	4	16%	5	56%	2	25%
We needed something (not subsistence food)	3	12%	4	44%	2	25%
Someone else needed something (not subsistence food)	7	28%	3	33%	5	63%
We had some extra subsistence food	3	12%	3	33%	1	13%
We needed extra cash	4	16%	2	22%	1	13%
Other reason	5	20%	1	11%	0	0%

Source ADF&G Division of Subsistence household surveys, 2015 and 2016.

a. Percentages of respondents who have ever participated in customary trade.

Several Alaska residents were cited for violating prohibitions on selling subsistence-taken fish, sometimes in large quantities and sometimes in interstate commerce. In their defense, these Alaskans argued that their activities were permissible as “customary trade.”¹ In *United States v. Alexander*², the Ninth Circuit held that the customary trade provisions of ANILCA may be employed as a defense against criminal prosecution for violations of the Lacey Act³ (Bruzzese 1993). At the same time, the Ninth Circuit recognized that a prohibition on sales was necessary to protect subsistence from commercial encroachments. To resolve the issue, the Federal Subsistence Board adopted a suite of regulations throughout rural Alaska regulating customary trade (see Introduction). In a letter to the Federal Subsistence Board on October 29, 2001, then ADF&G Commissioner Frank Rue emphasized the need for a species- and site-specific approach to regulating customary trade; a blanket approach would ignore the diversity of customary trade practices in Alaska (Pappas 2012:15). The Alaska Board of Fisheries subsequently recognized customary trade in herring roe in southeast Alaska (where the citations were issued) and for finfish in the Norton Sound-Port Clarence Area.

The line between legal customary trade, when permitted by the Board of Fisheries, and illegal sale can be difficult to delineate. The Board of Fisheries faced this question when it deliberated on customary trade for Norton Sound in January 2007. During those deliberations, assistant attorney general Lance Nelson told board members:

I happened to be involved in drafting this (state) legislation in 1992, and was present in the discussions of the legislative committees and the legislature itself... It was not intended to supplant commercial fishing. The intent of it was a means to provide for full distribution, full opportunity for distribution of subsistence products among subsistence users. That’s the basic intent, and motivation for allowing customary trade. (Magdanz et al. 2007)

1. *United States v. Skinna* (931 F.2d 530), *United States v. Frank* (912 F.2d 470)

2. 938 F.2d 942 (9th Cir. 1991)

3. Under the Lacey Act, it is unlawful to import, export, sell, acquire, or purchase fish, wildlife, or plants that have been illegally taken, possessed transported, or sold (16 U.S.C. 3371–3378).

Nelson made another salient point with regards to the noncommercial nature of customary trade in that any “commercial activity related to subsistence would be prohibited by the United States Constitution’s commerce clause, because it is going to be illegal under the commercial clause for the State to provide a commercial opportunity and limit it to residents of this state” (Magdanz et al. 2007). Although Nelson’s guidance to the board was specific to Norton Sound, it also applies to the Yukon Area. The Board of Fisheries subsequently adopted regulations on customary trade in Norton Sound that will be used as examples in the discussion of management considerations below.

EXCHANGE THEORY

A salient theme that emerged for most respondents in all the study communities is the importance of sharing and other forms of resource exchange as central cultural tenets of subsistence life along the Yukon River. As Lee (2002:5) argues, “subsistence is a collective that is based on sharing, one of the most deeply held cultural values. As a rule, then, when Alaska Natives practice subsistence for the nuclear family, the extended family, and for others of the community in need, they are fulfilling cultural values.” The practice of sharing resources in primarily Alaska Native communities is often conducted through complex kinship responsibilities, but can also extend to unrelated households to strengthen relationships and foster community health by supporting those in need.

Earlier scholars have examined the role of exchange practices in structuring social relationships within cultures or societies. Mauss (1990rep.) described 3 types of obligations encompassed in his theory of exchange: the obligation to give, the obligation to receive, and the obligation to reciprocate. Together these obligations enhance the solidarity of a society and engage members in a series of commitments that articulate the primary values of the system. Although the obligation to give is compelling, the obligation to accept or receive is no less compelling; an individual has little room to refuse a gift. Additionally, acceptance of the gift pulls individuals into a continuing cycle of reciprocation.

Multiple factors figure into the definitions and practices of exchange, including the relationship of the exchange partners and the time frame of the exchange. Exchanges can entail different requirements for reciprocation, depending on a variety of factors. Simple sharing, also called generalized reciprocity, is often characterized by an unspoken and uncalculated reciprocity with no negotiated or specified rate of exchange; sharing can occur at various times and provides security in times of hardship. Both generalized and balanced reciprocity (Sahlins 1972) adhere to a social framework that defines if and when a recipient is obliged to return a gift. Delayed reciprocity specifically introduces the concept of a timed expectation of a return; the gift requires a reciprocal exchange and is often negotiated along a particular timeline (Munn 1986; Sahlins 1972). This reciprocity can occur within or over seasons, as those successful in the harvest of a particular resource share their bounty and in turn receive the benefits of another’s success in later seasons or during other events. Alternatively, reciprocity can occur over decades, as younger people mature and take care of those who took care of them.

Therefore, the relationship between exchange participants, the timing of the trade, and the explicit expectation of a return gift are important considerations in practices of exchange. In describing their own exchange practices, respondents in this study discussed motivations behind particular exchange practices, norms regarding with whom one exchanges, the value of items exchanged, and expectations (or lack thereof) of reciprocal behavior. Most commonly, respondents talked about sharing and trading, using the term “trade” to mean both customary trade and barter. In most cases, as described in the community chapters, respondents repeatedly linked sharing to particular, often closely-connected partners and without expectation of return. In contrast, they used the terms “trade” and barter” to describe the explicit exchange of one resource for another, implying the need for negotiated reciprocity and often more distant relationships or exchange partners. However, these factors were not necessarily discreet in practice and thus did not necessarily indicate wholly separate types of exchange. As discussed in more detail below, respondents described exchanges that began with one set of motivations or objectives but took on other characteristics based on the relationship between and needs of the exchange participants. Indeed, the 3 obligations described by Mauss (1990rep.) appeared to shape the exchange itself, contributing to and reflecting personal and community values as well as cultural structures.

Local understandings and usages of these terms often compete with the legal definitions of these practices codified in the state's subsistence statute or in federal regulations. Notwithstanding the legal definitions, locally the terms "trade" and "barter" are often used interchangeably in a variety of settings from kitchen tables to regulatory meetings. Although barter is generally understood as the exchange of one wild resource or product for another, the term is also used to describe the act of negotiating an exchange—that is, setting or establishing the commensurability of the resources in the exchange. Although the term "trade" is sometimes used to describe the exchange of resources for cash, "trade" is most often used to describe the informal but negotiated exchange of items other than cash that would be legally termed "barter" (AS 16.06.940). Embedded in these discussions is an assumption that cash is a fundamentally different type of resource and one that signals a shift in the relationship between exchange participants. However, as Mauss explains, exchange practices tie together the juridical, economic, religious, social, cultural, and "even the aesthetic and morphological" facets of society (Mauss 1990rep.:79). Or, as Douglas (1990rep.:xv) argues, exchanges on any level are but "strands" within the whole; all exchanges are encapsulated by the social system rather than set apart from it. As such, customary trade is very much a part of subsistence systems rather than a practice that marks a departure from it. This is in contrast to specifically commercial activities which introduce a different set of values and motives.

Although cash can be accumulated to grow personal wealth, a value that differs fundamentally from community solidarity, the introduction of cash has diminished neither the importance of wild foods (Magdanz et al. 2016) nor the role of exchange in confirming relationships (Wheeler 1998). The common assumption that cash necessarily makes wild foods replaceable in these systems, reducing their use to optional or recreation, is false. Despite its value as a medium of exchange in market-based systems, cash does not replace the experiential and cultural aspects of producing food that strengthen individuals and family or community relationships in subsistence-based systems. Indeed, it appears to serve those relationships when local residents reinvest earned cash back into subsistence activities. Rather than given exclusive or special status as a singular resource, cash is used as one among many resources. Like other resources, the value of cash can be relative, and its value varies by availability that is often controlled by season (Wheeler 1998:263). Strategies to use cash mirror the use of other resources: "...when it is available, use it to the maximum extent possible, and when it is not available, make do with other resources" (Wheeler 1998:268). Moncrieff (2007) argues that cash has had an important role within the Yukon River resource distribution system as it has evolved over time. Some people are not able to harvest their own wild food, but do have access to cash. For instance, older people sometimes have cash but are not able to fish. They give cash to fishers who need financial support to be able buy gas, oil, or other necessities for fishing.

Communities display a substantial level of resilience and adaptation to the ever-changing circumstances of subsistence ways of life. Wheeler (1998) draws on Schneider's (1982) argument that characterizations of subsistence tend to emphasize traditional patterns over flexible and adaptive qualities to discuss the dual image of subsistence economies as either anachronistic and real or modern and less real. Arguing against evolutionary approaches to economic theory where subsistence or foraging economies stand in contrast to industrialization and capitalism, Wheeler (1998) concludes that the adoption of cash and modern tools does not necessarily mean either that people are giving up a subsistence way of life or that subsistence foods are becoming less important. "Rather, the use of cash and imported technology are part of an adaptive strategy which provides a means by which to deal with new economic, demographic, political, and cultural conditions" (Wheeler 1998:269). Wheeler finds that the adoption of cash within such contextual parameters has enabled continuity and contributed to economic resilience, because cash is just one of many highly valued resources, the presence and value of which is expected to vary (Wheeler 1998:272).

REGIONAL PATTERNS

The primary goal of this research was to describe and analyze the patterns of exchange, including customary trade as defined legally, in the upper Yukon River area based on field research in Fort Yukon, Manley Hot Springs, and Venetie. The earlier Results chapters provide detailed accounts of community data; this section attempts to discuss those data on a regional scale.

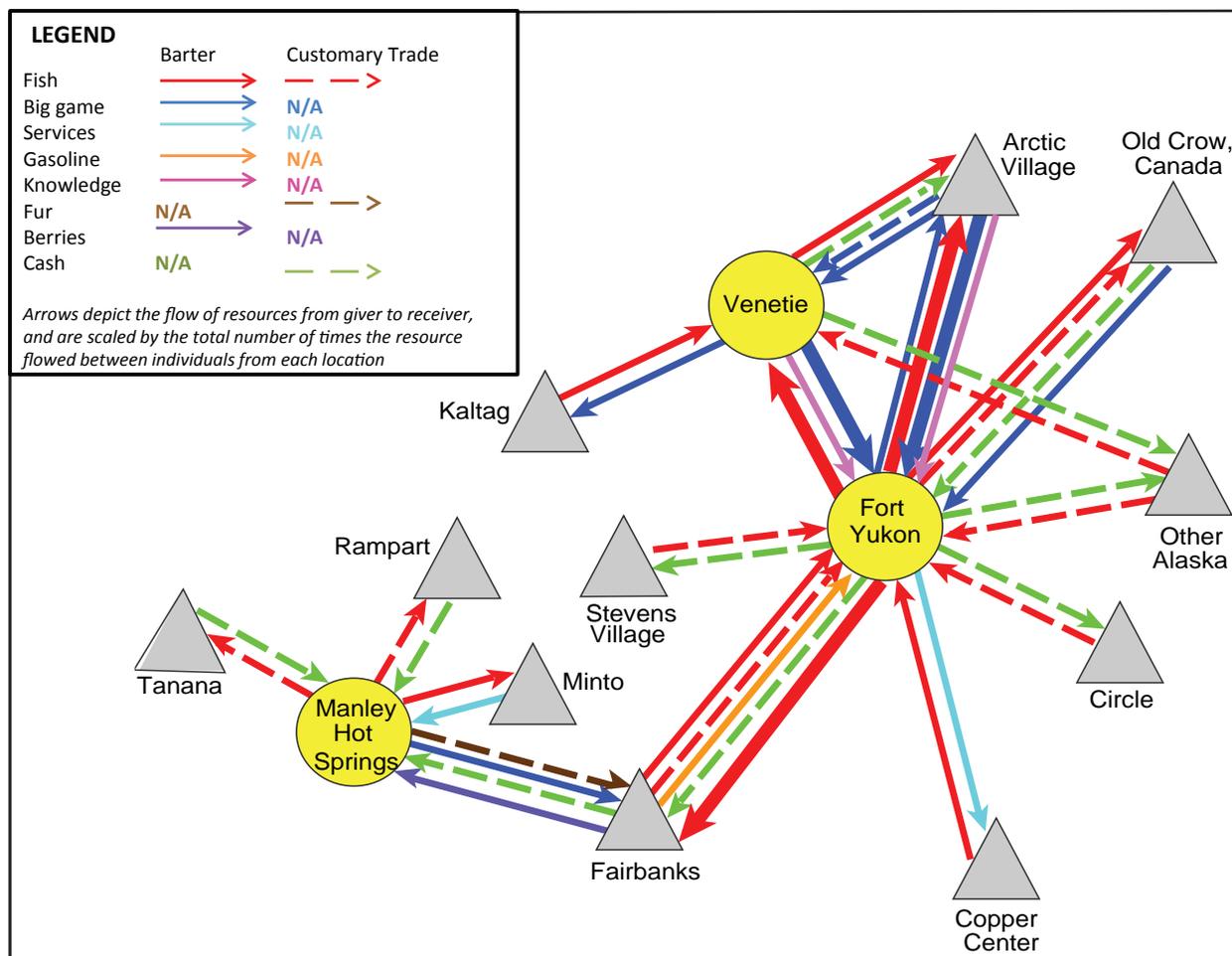


Figure 5-1.—Barter and customary trade network, study communities, 2014 and 2015.

Figure 5-1 depicts the aggregated barter and customary trade exchanges documented by respondents of the study communities. Exchanges are shown by location—study communities are represented by the yellow circles, and other locations are shown as grey triangles. Solid lines indicate barter, and dashed lines indicate customary trade. The weight of each line is scaled to the number of exchanges—thicker lines indicate more exchanges. Linked pairs of arrows depict the flow of resources from giver to receiver. For example, in the upper left area of the figure, the blue arrow between Venetie and Kaltag represents large land mammals such as moose or caribou moving from Venetie to Kaltag in exchange for fish (represented by a red arrow) moving from Kaltag to Venetie.

Although the arrows in this figure represent a small number of exchanges occurring between communities, a variety of patterns are evident. Although most exchanges occurred within study communities, some respondents did report exchanges with individuals in other communities during the study period. The greatest number of intercommunity exchanges occurred between the Yukon Flats communities of Fort Yukon, Venetie, Arctic Village, and Old Crow in Yukon Territory, Canada, which are linked by significant kinship ties. Fish, likely salmon, was a commonly exchanged item that most often moved from Fort Yukon on the mainstem Yukon River, where salmon are more abundant, to tributary communities in exchange for big game, likely caribou, which is more available to hunters in those communities. Where cash is exchanged, it is usually for fish. The third study community, Manley Hot Springs, appears more connected through barter and trade to the upper-middle Yukon River communities of Tanana, Minto, and Rampart. These communities also share kinship relations, and there are strong connections between Tanana and

Manley through dog mushing practices. Fish, likely salmon, is usually the focus of exchanges leaving Manley Hot Springs in return for cash (customary trade) or services (barter).

In general, exchanges involving the 3 upper Yukon River study communities were with other rural communities. The exception to this was Fairbanks, the urban hub for the upper Yukon River area; many residents of surrounding rural communities maintain kinship or other social connections to residents of Fairbanks. Two of the 3 study communities—Fort Yukon and Manley Hot Springs—reported exchange connections with the regional hub of Fairbanks. The exchanges between Fort Yukon and Fairbanks are dominated by fish, usually in exchange for either cash or other resources like gasoline. In contrast, the exchanges between Manley Hot Springs residents and Fairbanks residents were reported to include big game resources for berries and fur for cash. Very few exchanges were reported with middle Yukon River communities and none were reported with lower Yukon River communities, indicating that the exchanges documented in this study mostly occurred within the region.

Respondents reported that the exchange of wild resources, especially sharing, is one of the foundations of subsistence economies. For example, in 2012, residents of Manley Hot Springs reported harvest levels that amounted to 426 lb of wild resources per person.⁴ Levels of resource exchange were high—71% of households reported giving resources away to other households and 93% reported receiving resources. In addition to sharing, exchange occurs through barter and customary trade. Roughly half of the surveyed households in all 3 study communities reported participating in barter, or exchanging a wild resource for another type of resource (Table 5-1). Reasons for bartering were similar across the study communities. In all 3 communities, 50% or more respondents bartered because they needed subsistence food or because somebody else needed subsistence food.

Community respondents reported participating in customary trade at lower levels than barter (tables 5-1 and 5-2). In Fort Yukon, about 39% of surveyed households (25 households) reported trading, while 36% of surveyed households (9) in Manley Hot Springs and 31% of surveyed households (8) in Venetie reported trading (Table 5-2). Of the households that reported trading in each community, the majority reported doing it more than once a year, though several households in each place reported trading only once a year.

Residents of the study communities provided an understanding of their motivations for participating in customary trade as part of the household surveys and through the longer, ethnographic interviews. In Fort Yukon and Manley Hot Springs, households reported that the primary reason individuals engaged in customary trade was because they needed subsistence food (and were willing to pay for it; 040115FYU2). In Venetie, residents said that the primary reason for trading was someone else needing cash or something else besides subsistence food (110516VEE03). Although Table 5-2 shows the various reasons provided for engaging in customary trade by surveyed households, residents elaborated on the sentiments behind these reasons in ethnographic interviews. In Fort Yukon, people remember their parents or grandparents selling or bartering fish to support their dog teams or trapping practices. This history informs the respondents' own contemporary practices. At the same time, the cultural value of providing food within a community is taught from a young age and often incentivized with small amounts of cash. Children are encouraged to carry food to their elders and others and might be rewarded with cash, but the cash transaction is a by-product of the value being taught (040115FYU2, 033115FYU1, 040115FYU7). In Manley Hot Springs, respondents did not describe a generational history of customary trade, but emphasized that providing for each other was a deeply held community value. In Venetie, respondents stated that selling resources is generally discouraged in the community and is therefore more limited (033115FYU4, 040115FYU2, 1104VEE1604).

Given these examples, the legal separation of barter from customary trade based on the involvement of cash does not reflect most local understandings of the same practices. In all of the study communities (and in Brown et al. 2015 and Moncrieff 2007), respondents regularly used the terms “barter” and “trade” or “customary trade” synonymously, in contrast to selling. But this slippage of terminology appears to be more than a matter of semantics. Recalling Wheeler's (1998) argument that many subsistence-based communities place

4. Alaska Department of Fish and Game (ADF&G) Division of Subsistence, Juneau. “Community Subsistence Information System: CSIS.” Accessed November 27, 2017. <https://www.adfg.alaska.gov/sb/CSIS>

cash on the same level with other resources available for exchange, there is little local basis for difference between the terms. Respondents from all 3 study communities described a continuum of exchange in which sharing could easily evolve into barter (02062015MHS5) or customary trade (033115FYU4) without the intent to do so. For example, one person might simply share a wild food with another person who desires to reciprocate by giving back another resource, either a wild resource or cash, depending on what is available. The original giver (now recipient) accepts the return gift, perpetuating a culture of exchange. For example, Venetie respondents' descriptions of barter and customary trade sometimes appeared more like reciprocal sharing—a culture of sharing obligates recipients to future reciprocity even if the original exchange was not meant as a calculated or negotiated exchange where the commensurability of one resource for another might be evaluated. That is, giving or exchanging can create obligations of future support which might involve helping with cash. Especially in exchanges that involve delayed reciprocity, the line between barter and sharing is blurred or nonexistent, in particular when explicit negotiation of reciprocity is absent from the original gift. Another respondent from Fort Yukon described it this way: “We share...but then in most cases people are just going to give you fish; they want something. You have to share back...that’s just the way it is” (033115FYU3). One elder respondent emphasized that a discussion of barter (or customary trade) should not take place independently from a discussion of the larger sharing culture: “A lot of it is sharing too. It’s not just bartering. It’s not just selling. It’s how you respect. You have your respect for your family, neighbors, the whole town” (110416VEE01).

Even examples specifically involving cash are not always easy to categorize as barter or customary trade. Residents of Venetie described the commonly accepted practice of exchanging gas or money for gas for a portion, or share, of the harvest. Individuals may have the responsibility of contributing gas to a harvesting effort in exchange for a share of the harvest, but they actually provide cash to buy that gas. Even though cash is being exchanged in this circumstance, legally classifying the exchange as customary trade, it is understood locally as a contribution to the harvest effort. Providing money as compensation for expenses is different from paying a price that builds in profit margins towards the accumulation of wealth that characterizes commercial activities. In this way, participation in customary trade or barter is blurred with participation in cooperative harvests. Although barter and customary trade may seem like discreet or easily distinguishable categories and practices, they are not always understood locally as distinct. As such, the legal terminology describing these local practices does not adequately capture what local residents are actually doing, thus losing their meaning locally. According to one respondent, customary trade and barter are just words used by politicians (040115FYU5).

Although similarities exist between communities, such as the slippage between legal definitions and local understandings, differences between communities remain in exchange practices and their underlying motivations. For example, in Manley Hot Springs, exchanging resources, including barter and trade, is considered a community value of taking care of one another. In Fort Yukon, the obligation to take care of each other is also a community value but with a distinct historical and generational component where children are specifically targeted to participate in exchanges that sometimes involve small amounts of cash. In Venetie, where customary trade occurred at lower levels, many residents talked about bartering with family and close kin, but reserved customary trade for more distant friends or acquaintances. In both cases, barter and trade often filled a need that one could not meet through his or her own subsistence activities, such as acquiring resources only available outside of the area.

Comparison to Middle and Lower Yukon River Areas

The exchange of wild foods through sharing, bartering, and sale has been practiced throughout the Yukon River drainage, mostly within communities, but also between communities and with other regions for well over a century and long before statehood. Moncrieff (2007) summarizes much of this history in her ethnographic study of customary trade in the Yukon River drainage. In the early and mid-1900s, Yukon River residents harvested, dried, and bundled salmon which was sold to local middlemen for cash to buy trapping grubstake and who in turn sold it to dog mushers for food for their teams that provided transportation through the long winters. Dry fish not only provided excellent nutrition, but was easily stored

and transported in these bundles. Dog teams, primarily employed by the U.S. Postal Service, lived on dry fish on the trail and fish stew at home (Schneider 2012:33).

Wolfe (1981) and Fienup-Riordan (1986) document additional details of earlier customary trade, especially along the lower Yukon River. In his earlier analysis of food exchanges in the Yukon River delta, Wolfe (1981) argued that, like household consumption, local barter and trade practices were self-regulating because the demand was limited (Wolfe 1981:218). Fienup-Riordan (1986) described the cash sales of subsistence-caught salmon in Alakanuk and Scammon Bay in the early 1980s. She found that the purpose of these sales was not to gain profit but to distribute food through networks of kin.

Several decades later, Moncrieff (2007) interviewed fishers in Alakanuk, Holy Cross, and Tanana. Fishers in all 3 communities reported actively trading fish for small amounts of cash, although the frequency of exchanges varied by community. Further, fishers only traded after they had harvested enough fish for their household and had met social obligations of sharing with a network of extended family and friends. Customary trade was generally not conducted for profit; instead individuals sold fish to avoid wasting any excess harvest, to help out others who could not fish, to recuperate some of the costs of fishing and distributing that harvest to others, or to provide cash for other subsistence activities. Moncrieff concluded that along the lower and middle Yukon River, customary trade of subsistence-caught salmon varies significantly by community, within each community by household, and annually in terms of frequency of the practice.

In their consideration of the Chinook salmon disaster declaration of 2009, Brown et al. (2015) made an initial attempt to quantify customary trade practices in Yukon River communities. Working in 4 communities that spanned the Alaska portion of the river, they found that all of the study communities participated in barter and customary trade practices. That study had similar methodological concerns to this current study, including respondent discomfort with answering survey questions because of distrust or ethics, declining levels of participation resulting from lower harvests, and variations in regional or community participation in trade practices. Brown et al. (2015) compared barter and trade networks between the study communities and showed the central location of salmon within these exchanges. For example, in comparing exchange networks of the lower river community of Marshall and the upper river community of Eagle, they saw that Eagle residents exchanged salmon in nearly equal proportion for both subsistence resources (e.g., beaver, nonsalmon fish, moose) and market resources (e.g., groceries, cash, gasoline, ammunition) while in Marshall, salmon was exchanged for subsistence resources far more often than for market resources.

In this way, Brown et al. (2015) confirmed and extended many of the Moncrieff's (2007) findings that the practice of customary trade varies among communities, though in all study communities "continues today as an active form of resource exchange and support for subsistence economies needing cash" (Moncrieff 2007:34). These descriptions of customary trade are also consistent with those from other areas of the state (Krieg et al. 2007; Magdanz et al. 2007) that emphasize that despite the involvement of small amounts of cash, customary trade is not part of a market economy. Rather, local customs and values of sharing operate to dictate the practice of exchanging subsistence resources for cash. These uses are generally not considered a threat to the resource base until the market extends beyond local buyers (Magdanz et al. 2007:72). The local aspect of traditional exchange practices marks a fundamental difference with the commercial fish market, in which fish are sold and distributed out of the geographical or cultural space of subsistence-based households and communities reliant on wild foods. Barter and customary trade, rather, are a way of distributing fish and other resources within that space and supporting continued subsistence ways of life and values.

Brown et al. (2015) found that even in times of decline, salmon figures centrally in the exchange networks of Yukon River communities. Although data were collected during one of the most significant documented periods of low abundance for Chinook salmon, the resource still appeared at the center of local exchange networks. Questions remained, however, about the effect of sustained low abundance and restrictions in subsistence harvests on exchange networks. How would communities respond to this decline over time? Would they turn to other salmon species or resources? Will these changes differ by region?

The current study was conducted during a year when restrictions to subsistence regulations virtually eliminated any opportunity to harvest Chinook salmon. Although study respondents continued to barter or trade salmon, Fort Yukon residents reported switching to other species, such as fall chum salmon. The principle of scarcity may also have changed the valuation of salmon (040115FYU2). For example, in some cases of customary trade, scarcity may raise prices while in others, scarcity may keep the resource from being traded or even bartered.

CONSIDERATIONS FOR MANAGEMENT

One of the goals of this research has been to shed additional light on this contentious topic in order to provide quantitative and ethnographic data to a highly politicized debate. In order to design regulations that “provide for full distribution, full opportunity for distribution of subsistence products among subsistence users,” as described by Lance Nelson in 2007 (Magdanz et al. 2007), discussions about customary trade require full attention to customary trade’s history, variability, and purpose. This research documented the social benefits of customary trade as one way of redistributing subsistence resources within and between communities and households. However, there are still many questions about how to regulate customary trade on the Yukon River, especially in times of conservation.

This section will focus on the dimensions of customary trade that would be relevant should the Alaska Board of Fisheries⁵ (the Board) revisit the issue of customary trade along the Yukon River. In order for customary trade regulations to be adopted, members of the public or advisory committees would need to submit proposals for regulatory changes providing for customary trade, and these would trigger customary and traditional use reviews by the Board. We do not presume that the Board would make positive customary and traditional use findings for customary trade in any portion of the Yukon Area. However, if after weighing the available evidence, the Board did make a positive customary and traditional use finding, then it could consider the following questions.

First, what should be the maximum limit of noncommercial exchanges? A variety of approaches could be considered when establishing these limits. Limits could apply to the number of fish traded, the number of pounds traded, the maximum amount of cash received during customary trade exchanges during a year, or a combination of limits. Limits could apply to either an individual or a household. As noted in this report, the current and historical ranges of exchanges involving cash are wide, and there seems to be no clear line between noncommercial and commercial exchanges, either in regulation or among local residents. Two applicable examples currently exist in regulation. First, in the Norton Sound-Port Clarence Area, customary trade of finfish is limited to no more than \$500 total per household in a calendar year (5 AAC 01.188). Second, in the Southeast Alaska Area, individuals or households may choose to allocate some or all of their subsistence herring roe harvest to customary trade, but in any case the total harvest is limited to “32 pounds for an individual or 158 pounds for a household of two or more persons” per year (5 AAC 01.730 (g)). In order to determine the appropriate limits for customary trade on the Yukon River, the Board of Fisheries will have to consider all the applicable historical and cultural aspects that characterize customary trade in this area, just as it did in Norton Sound-Port Clarence and the Southeast Alaska areas.

Second, between whom should customary trade be permitted? Federal regulations describe customary trade through the rubric of geography of rural-to-rural users and rural-to-others (nonrural users) and limit customary trade to rural users (50 CFR § 100.27). However, other social landscapes might also structure exchanges. Our research suggests that social relationships motivate and structure different types of exchanges. Should customary trade be allowed with family members or within other social networks, even if the buyers are outside of a rural area or outside of the seller’s region? Results from this study demonstrate that rural community members maintain customary trade relationships with friends and family who live

5. Because the results of this report are dominated by the barter and trade of salmon, and because the customary trade of salmon is at the forefront of the discussions surrounding customary trade on the Yukon River, this section focuses on actions the Board of Fisheries could consider if they chose to revisit this issue. However, the customary trade of subsistence resources is not limited to fish, and the Alaska Board of Game could choose to take similar measures to address the customary trade of game animals on the Yukon River as well.

in other rural communities or regional hubs. The state's options, unlike the Federal Subsistence Board's, are limited by the common-use clause of the Alaska Constitution. If customary trade of a particular fish stock is permitted under state regulation, all Alaskans will have the opportunity to participate. The federal and state regulatory boards might consider prohibitions on customary trade with business entities, or with entities engaged in commercial fisheries-related business. In Southeast Alaska, the Board of Fisheries did not restrict the customary trade of herring roe on kelp to residents in a local region. However, the Board did prohibit licensed fisheries businesses from receiving subsistence-taken herring roe on kelp (5 AAC 01.717).⁶

Third, should customary trade be documented? In the Norton Sound-Port Clarence Area, individuals are required to obtain a customary trade record-keeping form from ADF&G before trading and to accurately record each trade on the form within 24 hours (5 AAC 01.188). When considering whether to document customary trade on the Yukon River, the results of this study are helpful in understanding the challenges that a reporting system could face for the customary trade participants. For example, the strong social and cultural ethic of reciprocity that exists in Yukon River communities sometimes results in participants giving or receiving cash as a way to show appreciation or as a way to "return the favor," causing simple sharing to evolve into what the law defines as customary trade. Because customary trade exchanges are not always pre-meditated or explicit, compliance with reporting requirements may prove difficult. If the Board chose to consider reporting requirements, it could require reporting for all customary trade or require reporting only under certain criteria, such as the status of a particular stock, volume of customary trade, or other considerations.

Fourth, how should customary traded resources be processed? As described in the data for this research, value-added products, such as dried salmon strips and bundles of dried chum salmon for dog food, have long been and continue to be a major component of existing customary trade networks. For example, in the results of the survey for this research, the majority of documented customary trade transactions involved processed fish. However, any food intended for human consumption, including foods exchanged through customary trade, are subject to food safety standards under both state and federal law (Federal Subsistence Board 2003). As a result, under Federal Subsistence Board regulations, fish can only be traded either fresh and unprocessed, or processed in a facility that meets the U.S. Department of Agriculture food processing standards. Because the customary trade of salmon on the Yukon River frequently involves salmon that was processed at fish camps or within participants' homes, current regulations surrounding customary trade and food safety do not fully consider existing historical and contemporary practices.

The realities of customary trade in the Yukon Area suggest that future discussions about customary trade should include attention to potential flexibility within existing food safety regulations, especially in light of increasing global attention to food security and promotion of small-scale, local production of food. In 2012, the State of Alaska adopted new regulations providing for "cottage foods" (18 AAC 31.012), which allow sale of certain home-prepared products, but restrict total gross receipts to less than \$25,000 within a calendar year. The regulations require that foods be sold in Alaska directly to consumers and not distributed wholesale or by mail order or consignment. Within the State of Alaska, the Department of Environmental Conservation (DEC) has primary responsibility for overseeing compliance with food safety standards. Fish are considered potentially hazardous foods by DEC, so producers would have to work with DEC's cottage foods program to accommodate traditional products such as salmon strips or jarred fish.

Finally, how does fishery status affect discussions of customary trade? The debate over customary trade in the Yukon Area has recently been muted by the severe declines in Chinook salmon abundance. However, recent improvements in the Yukon River Chinook salmon stock are bringing concerns about customary trade back into the management discussions. As such, the continuing dialogue about customary trade in the Yukon Area should address the role of conservative management: for example, should customary trade be allowed on stocks of concern, or a "stock of salmon for which there is a yield, management, or conservation concern" (5 AAC 39.222(35))?

6. The Board of Game, however, did place such restrictions on the barter of subsistence-taken game meat (5 AAC 92.200(e)).

SUGGESTIONS FOR FUTURE RESEARCH

This research attempted to characterize historical and contemporary exchange practices, with a focus on barter and customary trade, in order to refine our understanding of how resources are distributed within and between Alaska communities. A primary concern for managers, however, is how to track the effects of conservative management or regulatory restrictions on subsistence harvests in order to protect both the communities and the resource. There has been little research specifically on the effects of a decline in salmon returns on exchange practices in subsistence economies where various types of exchanges act as ways to distribute resources within and between communities. In one scenario, the resource—in this case salmon—would still be distributed broadly between households but in smaller quantities. In another scenario, the frequency of exchanges would decrease, thus limiting the distribution of the resource. Thus, we need to understand what happens to the fishing capacity in a given community during times of low abundance. Do the same number of households continue to fish, just at lower levels, or do fewer households fish? Alternatively, do fishers reorganize the fishery to more equitably share costs, such as sharing gear or increasing cooperative fishing? How do those who continue to fish distribute their harvest? Currently, the majority of households in most Yukon River communities report using salmon either because they harvested it themselves or because they received it. Would those use levels continue or would they decrease? Answering these questions would provide useful information to managers about how to design regulations that support community exchange patterns while also protecting the resource.

Given the challenges of determining how participation in sharing, barter, and customary trade changes over time and in response to various stimuli, research should be designed to revisit communities that participated in the Brown et al. (2015) study to compare the differences in participation between a “good” year and a “bad” one (2011, the study year for that research). To counteract the analytical challenges of single-year data, a temporal study of exchange where a community repeats the surveys over multiple years should account for annual variation in both resource abundance and subsistence harvest practices.

In addition to changes over time, future study should also include greater attention to the resources that are most commonly exchanged and for what reasons. Tributary communities that have less access to salmon resources, such as Venetie in this study, exchanged big game and other nonsalmon resources. Attention to other resources would highlight household or community specialization and how that specialization shapes exchange networks.

In conclusion, customary trade practices in the Yukon River drainage vary broadly in terms of products sold, by whom, to whom, and for what reason; they are not easily reduced to a simple drainage-wide description. However, respondents in this research reported some important similarities: exchanges involving cash were predominately 1) localized in nature; 2) small in scale; and 3) occasional in occurrence. In the upper Yukon River area, some understood the practice through the lens of the historical lifeways of their ancestors, intimately tied into traditional practices of hunting, fishing, and trapping. For others, any sale of subsistence resources violated ethics of selling that which is communally owned and provides for the good of the whole. Perhaps more significantly for local residents, customary trade was not always easily distinguishable from other types of exchanges due to the motivations for exchanging or the recipient’s participation in reciprocation as well as personal and community values of providing for others.

Clearly defined and enforceable limits on customary trade are necessary for orderly subsistence and commercial fisheries and could help relieve current anxieties among users about their own legal jeopardy should they choose to engage in the practice. However, subsistence resource exchanges are best seen as a continuum. Although individual practices or exchange events may not cleanly fit into an established legal category, they all contribute to community values of taking care of one another, or as Mauss (1990rep.) described it, social solidarity.

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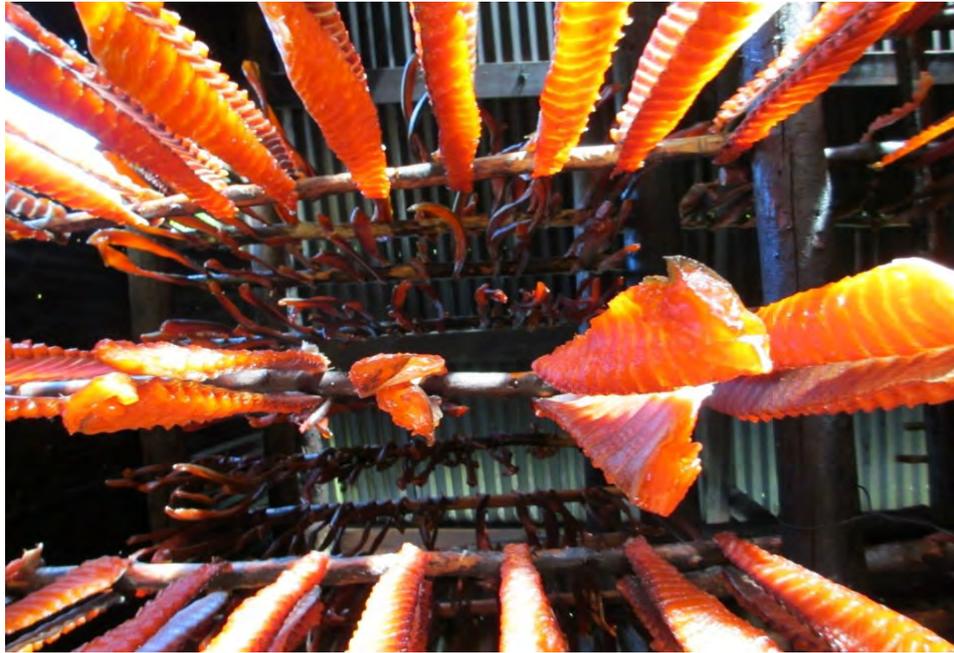
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APPENDIX A.—SURVEY INSTRUMENT



The Exchange and Distribution of Salmon and Other Resources on the Yukon River

Alaska Department of Fish and Game Subsistence Division
 1300 College Road • Fairbanks, AK 99701 • 907-459-7319
 Yukon Drainage Fisheries Association

P.O. Box 110498 • Anchorage, AK 99510 • 907-272-3142

THIS RESEARCH IS FUNDED BY THE U.S. FISH AND WILDLIFE SERVICE, OFFICE OF SUBSISTENCE MANAGEMENT

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

Information collected on this survey will be used by ADF&G to better understand how subsistence foods are distributed among households in the Yukon River area. You are not required to participate in this survey. We will not use the information from this survey for enforcement. We will publish a summary report, and send it to all the households that participate. We will not identify your household in any of our published materials.

ARE YOU WILLING TO PARTICIPATE IN THE SURVEY?

- YES**
CONTINUE THE SURVEY...
- NO**
STOP
THANK RESPONDENT.

PERSONAL HISTORY

BARTER																																							
<p>"BARTER" MEANS TO EXCHANGE SUBSISTENCE FOODS FOR SOMETHING OTHER THAN CASH. HAVE YOU EVER BARTERED SUBSISTENCE FOODS? YES (1) NO (0) <input style="width: 40px; height: 15px;" type="text"/></p>																																							
<p><i>If YES, continue below. If NO, skip to CUSTOMARY TRADE questions.</i></p>																																							
<p>WHY HAVE YOU BARTERED SUBSISTENCE FOODS? _____ <input style="width: 40px; height: 15px;" type="text"/></p>																																							
<p>I AM GOING TO READ SOME REASONS THAT PEOPLE MIGHT BARTER SUBSISTENCE FOOD. PLEASE TELL ME WHICH REASONS HAVE APPLIED TO YOU.</p>																																							
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<p>WHAT WAS THE <u>FIRST YEAR</u> YOU BARTERED SUBSISTENCE FOOD? YEAR _____ <input style="width: 40px; height: 15px;" type="text"/></p>																																							
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CUSTOMARY TRADE																																							
<p>CUSTOMARY TRADE MEANS THE EXCHANGE OF SUBSISTENCE FOODS FOR CASH. HAVE YOU EVER BOUGHT OR SOLD SUBSISTENCE FOODS? YES (1) NO (0) <input style="width: 40px; height: 15px;" type="text"/></p>																																							
<p><i>If YES, continue on this page. If NO, skip to next page.</i></p>																																							
<p>WHY HAVE YOU BOUGHT OR SOLD SUBSISTENCE FOODS? _____ <input style="width: 40px; height: 15px;" type="text"/></p>																																							
<p>I AM GOING TO READ SOME REASONS THAT PEOPLE MIGHT <u>BUY OR SELL</u> SUBSISTENCE FOOD. PLEASE TELL ME WHICH REASONS HAVE APPLIED TO YOU.</p>																																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">DID YOU BUY OR SELL SUBSISTENCE FOODS BECAUSE...</th> <th colspan="2" style="width: 20%;">REASON APPLIES?</th> <th style="width: 20%;">SINGLE MOST</th> </tr> <tr> <td></td> <td style="width: 10%;">Y</td> <td style="width: 10%;">N</td> <td style="width: 10%;">MOST</td> </tr> </thead> <tbody> <tr> <td>...YOU NEEDED SUBSISTENCE FOOD</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input style="width: 40px; height: 15px;" type="text"/></td> </tr> <tr> <td>...SOMEONE ELSE NEEDED SUBSISTENCE FOOD</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input style="width: 40px; height: 15px;" type="text"/></td> </tr> <tr> <td>...YOU NEEDED SOMETHING ELSE (NOT SUBSISTENCE FOOD)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input style="width: 40px; height: 15px;" type="text"/></td> </tr> <tr> <td>...SOMEONE ELSE NEEDED SOMETHING (NOT SUBS FOOD)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input style="width: 40px; height: 15px;" type="text"/></td> </tr> <tr> <td>...YOU HAD SOME EXTRA SUBSISTENCE FOOD</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input style="width: 40px; height: 15px;" type="text"/></td> </tr> <tr> <td>... YOU NEEDED EXTRA CASH</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input style="width: 40px; height: 15px;" type="text"/></td> </tr> <tr> <td>...OTHER REASON (Explain)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input style="width: 40px; height: 15px;" type="text"/></td> </tr> </tbody> </table>	DID YOU BUY OR SELL SUBSISTENCE FOODS BECAUSE...	REASON APPLIES?		SINGLE MOST		Y	N	MOST	...YOU NEEDED SUBSISTENCE FOOD	<input type="checkbox"/>	<input type="checkbox"/>	<input style="width: 40px; height: 15px;" type="text"/>	...SOMEONE ELSE NEEDED SUBSISTENCE FOOD	<input type="checkbox"/>	<input type="checkbox"/>	<input style="width: 40px; height: 15px;" type="text"/>	...YOU NEEDED SOMETHING ELSE (NOT SUBSISTENCE FOOD)	<input type="checkbox"/>	<input type="checkbox"/>	<input style="width: 40px; height: 15px;" type="text"/>	...SOMEONE ELSE NEEDED SOMETHING (NOT SUBS FOOD)	<input type="checkbox"/>	<input type="checkbox"/>	<input style="width: 40px; height: 15px;" type="text"/>	...YOU HAD SOME EXTRA SUBSISTENCE FOOD	<input type="checkbox"/>	<input type="checkbox"/>	<input style="width: 40px; height: 15px;" type="text"/>	... YOU NEEDED EXTRA CASH	<input type="checkbox"/>	<input type="checkbox"/>	<input style="width: 40px; height: 15px;" type="text"/>	...OTHER REASON (Explain)	<input type="checkbox"/>	<input type="checkbox"/>	<input style="width: 40px; height: 15px;" type="text"/>	<p style="text-align: center;"><i>"X" ONLY ONE!</i></p>		
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TRANSACTIONS

(1) (0)
YES NO

WITHIN THE LAST 12 MONTHS, HAVE YOU OR SOMEONE IN YOUR HOUSEHOLD BOUGHT, SOLD OR BARTERED SUBSISTENCE FOODS?
(BARTER MEANS EXCHANGING ONE SUBSISTENCE FOOD FOR ANOTHER FOOD OR RESOURCE, NOT CASH)

IF YES... WHAT KINDS OF SUBSISTENCE FOOD DID YOU OR SOMEONE IN YOUR HOUSEHOLD BUY, SELL, OR BARTER DURING THE LAST 12 MONTHS?

	TYPE OF TRANSACTION	WHAT KIND OF RESOURCE? (Species)	WHERE DID THIS TRANSACTION OCCUR?	WHERE DOES THE OTHER PARTICIPANT LIVE?	Amount of resource you bartered/ UNIT	WHAT DID YOU EXCHANGE THIS RESOURCE FOR?	HOW MUCH WAS EXCHANGED?/ UNIT	HOW ARE YOU RELATED TO THE PERSON YOU BARTERED WITH?	now, think back to the resource you bartered. IF FOOD, HOW WAS IT PROCESSED?	WHERE WAS THIS FOOD HARVESTED? (Location if known)
1	BARTER				/		/			
					/		/			
2					/		/			
3					/		/			
4					/		/			
					/		/			
	TYPE OF TRANSACTION	WHAT KIND OF FOOD? (Species)	WHERE DID THIS TRANSACTION OCCUR?	WHERE DOES THE SELLER LIVE?	Amount of FOOD you bought/ UNIT	HOW MUCH DID THIS FOOD COST? (in dollars)				
1	BUY				/					
					/					
2					/					
3					/					
4					/					
					/					
	TYPE OF TRANSACTION	WHAT KIND OF FOOD? (Species)	WHERE DID THIS TRANSACTION OCCUR?	WHERE DOES THE BUYER LIVE?	Amount of food you sold/ UNIT	HOW MUCH DID THIS FOOD COST? (in dollars)	HOW ARE YOU RELATED TO THE PERSON YOU SOLD THIS FOOD TO?	HOW WAS THIS FOOD PROCESSED? (Process)	WHERE WAS THIS FOOD HARVESTED? (Location if known)	
1	SELL				/					
					/					
2					/					
3					/					
4					/					
					/					

TRANSACTIONS

(1) (0)
YES NO

WITHIN THE LAST 12 MONTHS, HAVE YOU OR SOMEONE IN YOUR HOUSEHOLD BOUGHT, SOLD OR BARTERED SUBSISTENCE FOODS?

(BARTER MEANS EXCHANGING ONE SUBSISTENCE FOOD FOR ANOTHER FOOD OR RESOURCE, NOT CASH)

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1	BARTER				/		/				
2					/		/				
3					/		/				
4					/		/				
						/		/			
						/		/			
	TYPE OF TRANSACTION	WHAT KIND OF FOOD? <i>(Species)</i>	WHERE DID THIS TRANSACTION OCCUR?	WHERE DOES THE SELLER LIVE?	Amount of FOOD you bought/ UNIT	HOW MUCH DID THIS FOOD COST? <i>(in dollars)</i>		HOW ARE YOU RELATED TO THE PERSON YOU <u>BOUGHT</u> THIS FOOD TO?	HOW WAS THIS FOOD PROCESSED?	WHERE WAS THIS FOOD HARVESTED? <i>(Location if known)</i>	
1	BUY				/						
2					/						
3					/						
4					/						
						/					
	TYPE OF TRANSACTION	WHAT KIND OF FOOD? <i>(Species)</i>	WHERE DID THIS TRANSACTION OCCUR?	WHERE DOES THE BUYER LIVE?	Amount of food you sold/ UNIT	HOW MUCH DID THIS FOOD COST? <i>(in dollars)</i>			HOW ARE YOU RELATED TO THE PERSON YOU <u>SOLD</u> THIS FOOD TO?	HOW WAS THIS FOOD PROCESSED? <i>(Process)</i>	WHERE WAS THIS FOOD HARVESTED? <i>(Location if known)</i>
1	SELL				/						
2					/						
3					/						
4					/						
						/					

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HOUSEHOLD _____ COMMUNITY _____

QUESTIONS ON THIS PAGE ASK ABOUT YOUR COMMUNITY IN GENERAL, NOT JUST ABOUT YOUR OWN PERSONAL TRADING AND BARTERING

WHAT KIND OF SUBSISTENCE FOOD IS TRADED OR BARTERED MOST OFTEN IN YOUR COMMUNITY?	HOW IS THIS FOOD USUALLY PROCESSED?	WHAT IS A TYPICAL AMOUNT THAT SOMEONE MIGHT TRADE OR BARTER?		COMMENTS
<i>(Species)</i>	<i>(Dried, Smoked, Strips, etc.)</i>	<i>(Amount)</i>	<i>(Unit)</i>	

IF the food listed above is also listed below, please cross it out BELOW before continuing. We do not need to ask about trading something for itself.

NOW, LET'S PRETEND SOMEONE HAD THE FOOD ABOVE AND WANTED TO BARTER IT FOR...

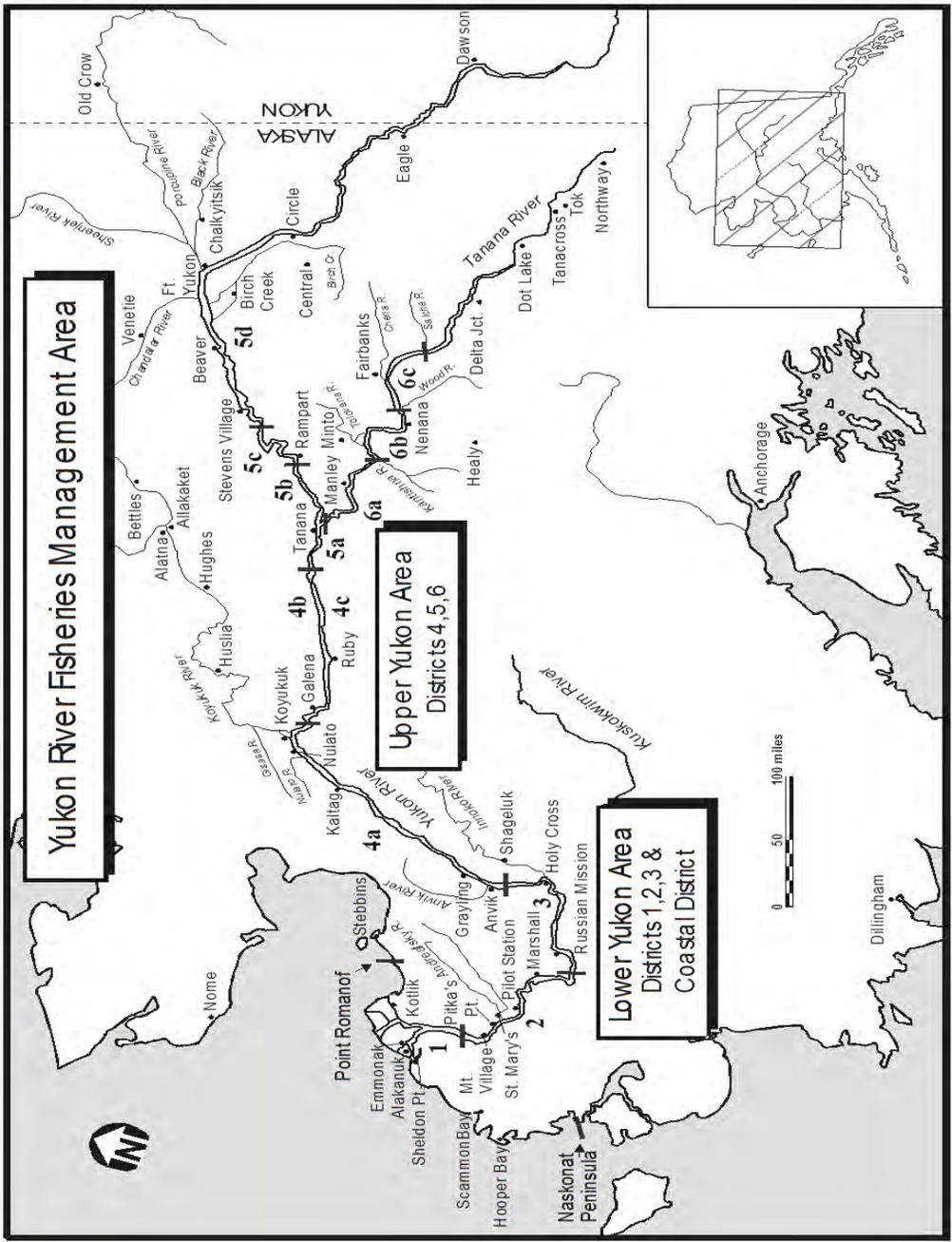
<i>(Species or Item)</i>	HOW OFTEN DO BARTERS LIKE THIS HAPPEN IN YOUR COMMUNITY?			HOW MUCH _____ WOULD BE A FAIR TRADE FOR THE FOOD ABOVE?		FROM WHERE DOES THIS ITEM USUALLY COME?	COMMENTS
	<i>(Circle One)</i>			<i>(Amount)</i>	<i>(Unit)</i>	<i>(Communities)</i>	
SALMON 110000000	OFTEN	RARELY	NEVER				
FISH OTHER THAN SALMON 120000000	OFTEN	RARELY	NEVER				
SEAL OIL 300888000	OFTEN	RARELY	NEVER				
MOOSE MEAT 211800000	OFTEN	RARELY	NEVER				
FUEL 930000000	OFTEN	RARELY	NEVER		GALLON 4		
GROCERIES 940100100	OFTEN	RARELY	NEVER				
BERRIES 601000000	OFTEN	RARELY	NEVER				
OTHER	OFTEN	RARELY	NEVER				
OTHER	OFTEN	RARELY	NEVER				

IF SOMEONE OFFERED CASH FOR THIS FOOD, WHAT WOULD BE A FAIR PRICE?

<i>(Item)</i>	HOW OFTEN...?			FAIR PRICE?		COMMENTS
	<i>(Circle One)</i>			<i>(Amount)</i>	<i>(Unit)</i>	
CASH 910000000	OFTEN	RARELY	NEVER	\$	DOLLARS	

HOW OFTEN DO PEOPLE HAGGLE OR BARGAIN ABOUT AMOUNTS...	...IN BARTERS?			...IN TRADES?		
	OFTEN	RARELY	NEVER	OFTEN	RARELY	NEVER

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**APPENDIX B.–ETHNOGRAPHIC INTERVIEW
PROTOCOL**

EXCHANGE PRACTICES IN THE UPPER YUKON RESEARCH SEMI-STRUCTURED INTERVIEW GUIDE

Name: _____ Birthplace: _____

Birth date: _____ Community of Residence: _____

A note to respondents: Today we are going to discuss your knowledge and experience with the Yukon River salmon fisheries. In addition to other fish species, we are particularly interested in your knowledge of the way Chinook salmon are exchanged and shared in your community. These common exchange practices are well documented historically, but there is little known about how they exist in Yukon River communities today. Are you the person in your household who is charge of sharing and exchanging salmon?

We would also like to administer a short survey at the end of this interview. With your consent, we will record this interview to ensure we document this conversation accurately.

Personal fishing history

- What are your first memories of fishing? In what ways did you participate?
 - Who did you fish with?
 - Where did you fish?
 - What kind of gear did you use?

- When did you first start fishing independently as an adult? What year was it? How old were you?
 - Do you still use the same places to harvest salmon? How far do you travel? Has this Changed? If so, why? Do you need to get permission from someone to put your nets there?]
 - What kinds of gear did you use when you first began fishing as an adult?
 - What was abundance like when you first began fishing for salmon? How many fish did you harvest in a season? Do you harvest a different amount of fish now than when you started? If so, why?
 - What kind of regulations were in place when you first started fishing?

- How has fishing changed since you began fishing?

- Sharing and Exchange of salmon:
 - Does your household regularly share salmon with other households (either giving them or receiving them?)

- How do you decide how many fish to catch?
 - What factors do you consider when deciding how to preserve those fish?

- How do you decide who you share your fish with? (e.g. Are they always relatives? Do you have a trading relationship with them? Is it usually based on need? Etc.)
- Do you ever exchange salmon for other subsistence resources or other items, such as gasoline, groceries, or wood, etc?)
- Do you ever exchange salmon for cash?

Personal understanding and use of terminology

Now I want to talk about different kinds of exchanges and the way we talk about them.

- In your community, what term do people use when they are exchanging one subsistence caught food for another, or a subsistence food for another resource like gas, firewood or store bought groceries?
- In your community, what term do people use when they are referring to the exchange of subsistence foods for cash?
- When you use or hear the term “barter” what does it mean to you?
- When you use or hear the term “customary trade” what does it mean to you?

Sometimes there is confusion over these terms because when we think of trading, we don't always think of money. In some places trade and barter are used interchangeably. In state and federal law however, customary trade means the exchange of subsistence foods for cash while barter means the exchange of one food for another or one food for another resource. This interview is going to include questions on both customary trade and barter so we want to make sure we are both on the same page about these terms. Throughout the interview I'll repeat the definitions so neither of us get confused.

Participation in barter and customary trade on the community level

- How do people in your community exchange food? How do people in your community share food?
- Do people ever sell or buy food from each other?
- What kinds of food are most often traded or bartered in your community? *And remember, when we say barter, we mean the exchange of subsistence foods for other*

foods or resources, and when we say customary trade, we mean the exchange of subsistence foods for cash. [ON THE SURVEY]

- Why are these foods exchanged more than others?
- How is this food usually processed? [ON THE SURVEY]
- How much does this food usually cost? (in terms of both cash or fair barter) [ON THE SURVEY]
- How often is this food exchanged in your community?
- How much do people rely on the buying or bartering of this food?

Participation in barter and customary trade on the *household* level

Barter

- Have you ever exchanged subsistence resources for something else (other than cash)? Do you barter for subsistence foods today? How often? [ON THE SURVEY]
- Why? [ON THE SURVEY]
- When did you first begin bartering subsistence foods? [ON THE SURVEY]
- How do you decide what a fair exchange is?
- Is the barter of subsistence caught fish important to your household? In what ways?

Selling

- Do you sell any of your subsistence-caught salmon or non-salmon as customary trade (non-commercial for limited amounts of cash)? If so, why? [ON THE SURVEY]

(If respondent does not sell, skip to buying)

- When did you first start selling subsistence-caught salmon or other fish?
- How much fish do you sell in a year? How do you decide how much you will sell? Has this changed for you over time? How?
- Are these whole fish “in the round” or processed fish like smoked strips or salt fish? [ON THE SURVEY]
- On average how much money do you make from selling subsistence-caught salmon or other fish each year? What is this money used for?

- Who do you sell subsistence-caught salmon or other fish to? [ON THE SURVEY]
 - How do you decide who to sell to and who not to sell to?
 - Does the cost of fish change depending on who you are selling to? Does it change year to year? Why?
 - Do you ever travel outside of your community to sell salmon or other fish? Where do you go? [ON THE SURVEY] How often?
- Earlier we talked about how you decide how many fish you try to harvest. Do you ever plan for harvesting extra to either barter or sell?
- Is the sale of subsistence caught fish important to your household? In what ways?

Buying

- How much fish do you buy in a year? What factors affect this amount?
- What are some reasons that you buy salmon or other fish?
- How is the fish processed when you buy it?
- Who do you buy it from? How long have you bought fish from this person?
- Do you ever buy fish from people outside of this community? Where?
- Do you redistribute (either through sharing, bartering or selling) the fish you buy to other people?

Regulations and restrictions

Earlier research on customary trade showed us that people from all parts of the Yukon River sell salmon; it is not only done by people in just one part of the river. Further, while it is not currently legal on the Yukon River, it is recognized as a customary and traditional subsistence practice in the state subsistence statute. Selling fish as customary trade IS legal in other parts of the state when residents have asked the Board of Fish to consider legalizing it through the Board of Fish process (northwest Alaska, southeast Alaska)

- Are you familiar with the regulations concerning customary trade?
- Have you ever had to deal with the regulations of customary trade?

- Do you feel that the regulations take into account the needs of subsistence users? If you were asked to revise the CT regulations, what recommendations would you make?
- Do state and federal regulations affect how or when you sell fish?
- Are there any factors that would deter you from selling fish you caught?
- Have fishing restrictions changed the way you exchange fish? How?

APPENDIX C.—ADDITIONAL TABLES

Table C2-1.—Subsistence salmon harvests and salmon fed to dogs, Fort Yukon, 1990–2014.

Year	Subsistence salmon harvest					Salmon fed to dogs			
	Chinook salmon	Summer chum salmon	Fall chum salmon	Coho salmon	Total	Summer chum salmon	Fall chum salmon	Coho salmon	Total
1990	4,077	132	11,579	674	16,462	-	-	-	-
1991	5,165	11,008	7,330	366	23,869	4,685	60	-	4,745
1992	4,017	1,652	4,700	340	10,709	3,874	1,583	87	5,544
1993	6,433	3,973	2,380	5	12,792	1,655	1,991	-	3,646
1994	4,889	2,043	6,827	963	14,723	1,798	4,589	1,270	7,657
1995	3,132	998	7,626	4	11,759	823	4,727	-	5,550
1996	4,999	26	7,063	157	12,246	26	7,301	21	7,348
1997	3,145	133	6,119	248	9,645	-	2,291	-	2,291
1998	1,783	30	3,062	37	4,912	29	1,610	10	1,649
1999	2,539	0	9,702	124	12,366	211	7,760	124	8,095
2000	976	0	331	120	1,427	-	225	-	225
2001	2,337	289	2,192	960	5,778	334	1,996	354	2,684
2002	2,598	2,294	4,310	12	9,215	997	2,069	10	3,076
2003	4,016	2,293	5,972	247	12,528	2,172	4,972	72	7,216
2004	3,475	982	5,315	18	9,790	745	6,972	20	7,737
2005	3,465	67	7,861	364	11,757	617	4,190	135	4,942
2006	2,855	1,846	4,324	35	9,059	1,712	905	-	2,617
2007	3,809	1,848	5,439	2,554	13,651	2,150	6,167	400	8,717
2008	1,903	230	12,822	1,545	16,500	91	10,367	136	10,594
2009	836	257	2,616	2	3,711	347	1,362	-	1,709
2010	1,545	617	5,097	203	7,462	133	4,560	267	4,960
2011	2,569	1,334	6,398	1,040	11,343	1,216	5,575	176	6,967
2012	2,299	0	13,393	0	15,692	390	10,498	-	10,888
2013	1,345	149	12,468	61	14,023	149	9,972	-	10,121
2014	10	15	6,054	481	6,560	8	5,387	176	5,571
Average harvest	2,969	1,289	6,439	422	11,119	966	4,285	130	5,606
Average percentage of harvest	27%	12%	58%	4%	100%	18%	80%	2%	48%

Source ADF&G Division of Commercial Fisheries, Post-season household salmon harvest surveys, 1990–2014.

Table C2-2.—Reported barter transactions by resource, Fort Yukon, 2014.

Resource	Giving transactions			Receiving transactions		
	Number of households	Number of transactions	Estimated amount	Number of households	Number of transactions	Estimated amount
Wild foods						
Chum salmon	2	4	374 lb	3	4	850 lb
Chinook salmon	2	7	317.8 lb ^a	1	1	Not reported
Sockeye salmon	-	-	-	1	1	84 lb
Salmon roe	1	1	2 lb	-	-	-
Unspecified salmon	1	1	103 lb	-	-	-
Halibut	-	-	-	1	1	5 lb
Unspecified fish	3	10	321 lb ^b	1	1	51.5 lb
Caribou	1	1	2 lb	2	4	134.4 lb
Moose	4	10	109 lb ^c	5	5	581 lb ^c
Unspecified large land mammals	-	-	-	1	1	4 lb
Unspecified scoters	-	-	-	1	1	23 lb
Unspecified ducks	-	-	-	1	1	5.5 lb
Unspecified geese	3	4	110.6 lb	-	-	-
Unspecified item	-	-	-	1	2	Not reported
Market resources						
Ammunition	1	1	\$40	2	2	\$100
Baked goods	-	-	-	2	13	Unknown
Gasoline	5	5	\$920 ^d	4	5	\$126 ^d
Knowledge	-	-	-	1	3	N/A
Labor	1	1	N/A	-	-	-

Source ADF&G Division of Subsistence household surveys, 2014

a. Amount not reported for 1 Chinook salmon transaction.

b. Amount not reported for 3 unspecified fish transactions.

c. Amounts not reported for 2 moose given and 2 moose received transactions.

d. Amounts not reported for 2 gasoline given and 2 gasoline received transactions.

Table C2-5.–Table C2-3.–Reported barter transactions by relationship between respondent and exchange partner, Fort Yukon, 2014.

Relationship	Number of transactions
Friend	24
Extended family	6
Cousin	4
Daughter	3
Elder	2
Father	1
Mother	1
Son	1
Not reported	2

Source ADF&G Division of Subsistence household surveys, 2015.

Table C2-4.–Reported barter transactions by locations of harvest, transaction, and exchange partner residence, Fort Yukon, 2014.

Harvested	Location		Number of transactions	Percentage of total barter transactions
	Transaction occurred	Exchange partner residence		
Fort Yukon	Fort Yukon	Fort Yukon	32	71%
Fort Yukon	Fairbanks	Fairbanks	2	4%
Fort Yukon	Old Crow, Canada	Old Crow, Canada	2	4%
Other Alaska	Fort Yukon	Fort Yukon	2	4%
Fort Yukon	Arctic Village	Arctic Village	1	2%
Fort Yukon	Birch Creek	Arctic Village	1	2%
Fort Yukon	Venetie	Venetie	1	2%
Missing	Copper Center	Copper Center	1	2%
Arctic Village	Fort Yukon	Arctic Village	1	2%
Arctic Village	Missing	Arctic Village	1	2%
Arctic Village	Missing	Venetie	1	2%

Source ADF&G Division of Subsistence household surveys, 2015.

Table C2-6.—Reported customary trade transactions by resource, Fort Yukon, 2014.

Resource	Buying transactions			Selling transactions				
	Number of households	Number of transactions	Cash given	Amount bought	Number of households	Number of transactions	Cash received	Amount sold
Chum salmon	9	11	\$890.00	497.6 lb ^a	3	5	\$180.00 ^b	359.2 lb ^c
Chinook salmon	4	4	\$375.00	323.8 lb	-	-	-	-
Total	12	15	\$1,265.00	821.4 lb	3	5	\$180	359.2 lb

Source ADF&G Division of Subsistence household surveys, 2015.

- a. Amount not reported for 1 chum salmon buying transaction
- b. Cash received not reported for 2 chum salmon selling transactions.
- c. Amount not reported for 1 chum salmon selling transaction.

Table C2-7.—Reported customary trade transactions by locations of harvest, transaction, and exchange partner residence, Fort Yukon, 2014.

Harvested	Location		Buying transactions		Selling transactions	
	Transaction occurred	Exchange partner residence	Number	Percentage	Number	Percentage
Fort Yukon	Fort Yukon	Fort Yukon	10	67%	2	40%
Circle	Fairbanks	Circle	1	7%	-	-
Chitina	Fairbanks	Fairbanks	1	7%	-	-
Rampart	Fairbanks	Fairbanks	1	7%	-	-
Fort Yukon	Fairbanks	Other Alaska	1	7%	-	-
Stevens Village	Fairbanks	Stevens Village	1	7%	-	-
Fort Yukon	Fairbanks	Old Crow, Canada	-	-	3	60%

Source ADF&G Division of Subsistence household surveys, 2015.

Table C2-8.—Relationships between surveyed customary trade participants and exchange partners, Fort Yukon, 2014.

Relationship	Number		
	Buying transactions	Selling transactions	Total transactions
Friend	14	1	15
Extended family	0	2	2
Spouse	0	1	1
Cousin	0	1	1
Nephew	1	0	1

Source ADF&G Division of Subsistence household surveys, 2015.

Table C2-9.—Comparison of participation in barter and customary trade, Fort Yukon, 2014.

Exchange type	Number of households
Barter	19
Trade	13
Both	12
Neither	19
Unknown	2

Source ADF&G Division of Subsistence household surveys, 2015.

Table C3-1.—Salmon harvests, Manley Hot Springs, 1989–2014.

Year	Chinook salmon	Summer chum salmon	Fall chum salmon	Coho salmon	Total salmon harvest
1989	992	2,457	21,087	5,310	29,846
1990	1,169	2,250	25,860	7,574	36,853
1991	401	1,716	13,243	6,361	21,721
1992	551	850	7,010	4,725	13,136
1993	238	1,310	3,215	1,535	6,298
1994	480	1,405	13,722	10,410	26,017
1995	335	1,657	20,272	7,395	29,659
1996	134	1,219	10,662	2,462	14,477
1997	242	576	5,887	3,236	9,941
1998	209	211	4,411	2,362	7,193
1999	136	272	5,172	3,244	8,824
2000	58	240	0	2,180	2,478
2001	534	338	1,230	2,637	4,739
2002	336	93	947	1,617	2,993
2003	213	65	1,303	886	2,467
2004	239	296	1,504	1,384	3,423
2005	289	163	2,985	2,510	5,947
2006	361	89	3,374	1,671	5,495
2007	333	140	3,419	1,126	5,018
2008	106	144	7,058	4,243	11,551
2009	345	367	4,126	2,308	7,146
2010	337	102	2,696	1,832	4,967
2011	287	142	2,333	1,482	4,244
2012	174	58	2,164	1,374	3,770
2013	165	45	1,539	447	2,196
2014	92	182	2,579	1,177	4,030
Average harvest	337	630	6,454	3,134	10,555
Average percentage of harvest	3%	6%	61%	30%	100%

Source Busher et al. 2008; Busher et al. 2009; Holder and Hamner 1998; Jallen et al. 2017.

Table C3-2.—Reported barter transactions by resource, Manley Hot Springs, 2014.

Resource	Giving transactions			Receiving transactions		
	Number of households	Number of transactions	Estimated amount	Number of households	Number of transactions	Estimated amount
Wild foods						
Chinook salmon	1	1	Not reported ^a	-	-	-
Unspecified salmon	4	4	47 lb	-	-	-
Unspecified fish	-	-	-	2	2	1,030 lb ^b
Moose	1	1	1 lb	2	2	2 lb ^c
Berries	2	2	24 lb	3	3	8.75 lb
Market resources						
Groceries	1	1	\$10.00	1	1	\$5.00
Labor	1	1	N/A	3	4	N/A
Use of fishing location	1	1	N/A	-	-	-
Wood	1	1	2 cords	-	-	-

Source ADF&G Division of Subsistence household surveys, 2015

a. Amount not reported for Chinook salmon transaction.

b. Amount not reported for 1 unspecified fish transaction.

c. Amount not reported for 1 moose transaction.

Table C3-3.—Reported barter transactions by locations of harvest, transaction, and exchange partner residence, Manley Hot Springs, 2014.

Location			Number of transactions	Percentage of total barter transactions
Harvested	Transaction occurred	Exchange partner residence		
Manley Hot Springs	Manley Hot Springs	Manley Hot Springs	9	75%
Manley Hot Springs	Tanana	Manley Hot Springs	1	8%
Manley Hot Springs	Tanana	Minto	1	8%
Missing	Fairbanks	Fairbanks	1	8%

Source ADF&G Division of Subsistence household surveys, 2015.

Table C3-4.—Reported barter transactions by relationship between respondent and exchange partner, Manley Hot Springs, 2014.

Relationship	Number of transactions
Friend	11
Neighbor	1

Source ADF&G Division of Subsistence household surveys, 2014.

Table C3-5.—Reported customary trade transactions by locations of harvest, transaction, and exchange partner residence, Manley Hot Springs, 2014.

Location			Buying transactions		Selling transactions	
Harvested	Transaction occurred	Exchange partner residence	Number	Percentage	Number	Percentage
Manley Hot Springs	Manley Hot Springs	Manley Hot Springs	2	50%	7	88%
Yukon River District 5	Manley Hot Springs	Rampart	1	25%	-	-
Tanana	Tanana	Tanana	1	25%	-	-
Manley Hot Springs	Fairbanks	Fairbanks	-	-	1	13%

Source ADF&G Division of Subsistence household surveys, 2015.

Table C3-6.—Reported customary trade transactions by resource, Manley Hot Springs, 2014.

Resource	Buying transactions				Selling transactions			
	Number of households	Number of transactions	Cash given	Amount bought	Number of households	Number of transactions	Cash received	Amount sold
Chum salmon	-	-	-	-	1	1	\$6.00	25.5 lb
Chinook salmon	1	1	\$250.00	4.8 lb	-	-	-	-
Coho salmon	2	2	\$205.00	24.8 lb	1	1	\$9.00	13.8 lb
Unspecified salmon	-	-	-	-	1	5	\$250.00	24.4 lb
Small land mammals (fur only)	-	-	-	-	1	1	\$500.00	Not reported
Wood	1	1	\$1,000.00	4 cords	-	-	-	-

Source ADF&G Division of Subsistence household surveys, 2015.

Table C3-7.—Reported customary trade transactions by relationship between respondent and exchange partner, Manley Hot Springs, 2014.

Relationship	Number		
	Buying transactions	Selling transactions	Total transactions
Friend	1	1	2
Cousin	1	0	1
Extended family	1	0	1
Neighbor/Community member	1	7	8

Source ADF&G Division of Subsistence household surveys, 2015.

Table C3-8.—Comparison of participation in barter and customary trade, Manley Hot Springs.

Exchange type	Number of households
Barter only	6
Trade only	2
Both	7
Neither	10
Total	25

Source ADF&G Division of Subsistence household surveys, 2015.

Table C4-1.—Subsistence salmon harvests and salmon fed to dogs, Venetie, 1990–2015.

Year	Subsistence salmon harvest					Salmon fed to dogs			
	Chinook salmon	Summer chum salmon	Fall chum salmon	Coho salmon	Total	Summer chum salmon	Fall chum salmon	Coho salmon	Total
1990	29	0	5,377	348	5,754	-	-	-	-
1991	9	3,393	758	12	4,172	-	-	-	-
1992	35	0	3,066	45	3,146	0	3,066	45	3,111
1993	2,716	129	7,881	135	10,861	70	6,137	121	6,328
1994	524	567	4,302	4	5,397	567	4,302	28	4,897
1995	434	552	6,085	0	7,071	552	4,170	0	4,722
1996	134	0	7,195	264	7,593	0	6,592	754	7,346
1997	314	76	1,564	7	1,961	76	1,689	0	1,765
1998	168	0	658	0	826	0	598	0	598
1999	127	166	2,011	0	2,304	86	1,730	0	1,816
2000	103	0	130	0	233	0	130	0	130
2001	28	106	3,286	10	3,430	106	1,093	0	1,199
2002	77	13	680	12	782	0	525	0	525
2003	125	0	770	11	906	0	694	0	694
2004	352	15	2,083	5	2,455	0	1,226	0	1,226
2005	59	0	1,801	0	1,860	0	1,244	0	1,244
2006	667	475	520	24	1,686	400	30	0	430
2007	1,002	107	721	0	1,830	53	586	0	639
2008	292	50	1,563	0	1,905	50	820	0	870
2009	622	143	2,373	0	3,138	0	2,383	0	2,383
2010	767	0	2,989	159	3,915	0	2,196	159	2,355
2011	10	0	1,938	34	1,982	453	1,513	0	1,966
2012	86	0	295	0	381	0	507	0	507
2013	311	0	5,340	6	5,657	0	5,386	0	5,386
2014	12	0	1,538	0	1,550	0	1,375	0	1,375
2015	308	0	2,423	24	2,755	0	1,493	0	1,493
Average harvest	358	223	2,590	42	3,213	101	2,062	46	2,209
Average percentage of harvest	11%	7%	81%	6%	100%	4%	90%	2%	100%

Source ADF&G Division of Commercial Fisheries, post-season household salmon harvest surveys, 1990–2015.

*In households who feed salmon to dogs.

Table C4-2.—Reported barter transactions by resource, Venetie, 2015.

Resource	Giving transactions			Receiving transactions		
	Number of households	Number of transactions	Estimated amount	Number of households	Number of transactions	Estimated amount
Wild foods						
Chum salmon	1	1	151.4 lb	1	1	3.3 lb
Chinook salmon	4	4	300.8 lb	1	2	13 lb
Caribou	3	3	108.75 lb	3	3	260 lb ^a
Moose	2	2	17.5 lb	1	1	60 lb
Unspecified ducks	-	-	-	1	1	7.5 lb
Unspecified geese	1	1	34.8 lb	-	-	-
Berries	-	-	-	1	1	0.4 lb
Market resources						
Ammunition	1	1	\$40.00	2	2	\$100.00
Baked goods	-	-	-	1	1	1 loaf
Cigarettes	-	-	-	1	1	\$100.00
Gasoline	3	3	\$315.00 ^a	1	1	\$210.00
Subsistence supplies	-	-	-	1	1	\$20.00

Source ADF&G Division of Subsistence household surveys, 2016.

a. Amount not reported for 1 caribou transaction.

b. Amount not reported for 1 gasoline transaction.

Table C4-3.—Reported barter transactions by locations of harvest, transaction, and residence of exchange partner, Venetie, 2015.

Harvested	Location		Number of transactions	Percentage of total barter transactions
	Transaction occurred	Exchange partner residence		
Venetie	Venetie	Venetie	10	67%
Venetie	Venetie	Fort Yukon	2	13%
Arctic Village	Venetie	Arctic Village	1	7%
Arctic Village	Venetie	Venetie	1	7%
Not reported	Venetie	Kaltag	1	7%

Source ADF&G Division of Subsistence household surveys, 2016.

Table C4-4.—Reported barter transactions by relationship of respondent and exchange partner, Venetie, 2015.

Relationship	Number of transactions
Friend	7
Elder	2
Grandmother	1
Extended family	1
Sister	1
Cousin	1

Source ADF&G Division of Subsistence household surveys, 2016.

Table C4-5.—Reported customary trade transactions by resource, Venetie, 2015.

Resource	Buying transactions			
	Number of households	Number of transactions	Cash given	Amount bought
Chinook salmon	2	2	\$140.00 ^a	101.3 lb ^a
Caribou	3	3	\$60.00	6.25 lb

Source ADF&G Division of Subsistence household surveys, 2016.

Note No selling transactions were reported.

a. Cash received and amount bought not reported for 1 Chinook salmon purchase.

Table C4-6.—Reported customary trade transactions by relationship of respondent and exchange partner, Venetie, 2015.

Relationship	Number
	Buying transactions
Friend	3
No relation	1

Source ADF&G Division of Subsistence household surveys, 2016.

Note No selling transactions were reported.

Table C4-7.—Reported customary trade transactions by locations of harvest, transaction, and exchange partner residence, Venetie, 2015.

Harvested	Location		Buying transactions	
	Transaction occurred	Exchange partner residence	Number	Percentage
Ventie	Ventie	Ventie	1	20%
Arctic Village	Ventie	Ventie	1	20%
Arctic Village	Venetie	Arctic Village	1	20%
Not reported	Fairbanks	Unknown	1	20%

Source ADF&G Division of Subsistence household surveys, 2016.

Note No selling transactions were reported.

Table C4-8.—Comparison of participation in barter and customary trade, Venetie, 2015.

Exchange type	Number of households
Barter only	5
Trade only	1
Both	7
Neither	13
Total	26

Source ADF&G Division of Subsistence household surveys, 2016.