THE HARVEST AND USE OF FISH, WILDLIFE, AND PLANT RESOURCES IN FALSE PASS, UNIMAK ISLAND, ALASKA

by

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ABSTRACT

This report describes contemporary subsistence uses of fish, wildlife, and wild plants in the southwest Alaska community of False Pass. Information about the history, demography, and cash economy of the community is also presented. The report is based primarily on research conducted by the Division of Subsistence of the Alaska Department of Fish and Game. In November 1988, two division researchers interviewed 20 of the 22 year-round households in the community (a 90.9 percent sample) about their wild resource harvests and uses for a 12-month study period from November 1987 through October 1988. Previously, a division researcher had mapped subsistence harvest areas with several False Pass residents. The report also draws from published sources and from ongoing subsistence harvest monitoring efforts focusing on salmon and marine mammals.

Presently, False Pass is the only permanent community on Unimak Island, the eastern-most island of the Aleutian Islands chain. Most of its residents are Alaska Natives who are descendants of the three regional groups of Aleuts indigenous to the lower Alaska Peninsula, Shumagin Islands, Sanak Islands, and Unimak Islands. These groups suffered severe population losses during the early years of the Russian conquest, when many villages were abandoned. Since the late 19th and early 20th centuries, after the acquisition of Alaska by the United States, the commercial fishing and processing industries have figured prominently in the cash sector of the area's economy.

In the 1987188 study year, the 22 year-round households of False Pass had an estimated population of 69 people, 84.1 percent of whom were of Alaska Native ancestry. A large majority of the community's population (79.4 percent) had been born in the Aleutian Islands/lower Alaska Peninsula area.

Commercial fishing was the dominant factor in the cash sector of the local economy of False Pass in 1987/88. Of all jobs, the most, 31.4 percent, were in commercial fishing. Commercial fishing employed 51.9 percent of the employed adults in False Pass during the study year, and 65.0 percent of the households contained at least one commercial fisherman. Commercial fishing provided 67.2 percent of the community's earned cash income in 1987/88, and 61.5 percent of the total cash income.

Involvement in subsistence hunting, fishing, and gathering activities was universal among False Pass households in 1987/88, with every household using and harvesting at least one kind of wild resource. Of the total population, 85.7 percent engaged in at least one subsistence harvesting activity during the study year. These activities followed a patterned seasonal round, with late spring, summer, and early fall being particularly productive times of the year for subsistence resources, In 1987/88, subsistence uses were very diverse in False Pass, with the average household using 22.6 kinds of wild resources, harvesting 14.0 kinds, receiving 13.1 kinds, and giving away 9.7 kinds.

As estimated in pounds usable weight, wild resource harvests for home use were substantial in False Pass in 1987/88. On average, households harvested 1,299.4 pounds, usable weight, a per capita harvest of 412.5 pounds. Salmon made up the largest portion of the total harvest (46.8 percent), followed

by land mammals (mostly caribou) (19.2 percent), fish other than salmon (halibut, cod, Dolly Varden) (14.7 percent), marine mammals (harbor seal, beach-salvaged gray whale) (6.1 percent), marine invertebrates (octopus, clams, crabs, chitons) (5.6 percent), birds and eggs (ptarmigan, waterfowl, gull eggs) (4.4 percent), and wild plants (berries, other wild plants) (3.1 percent). Resources harvested in the largest quantities, as estimated in pounds usable weight, included caribou, coho salmon, sockeye salmon, chum salmon, pink salmon, harbor seal, and halibut. Resources removed from commercial harvests for home use accounted for 30.8 percent of the total home use harvest in the study year.

Sharing of wild resources between households was extremely wmmon in False Pass during the study year. Every household received gifts of wild foods, and 95.0 percent shared harvests with others. As in many rural Alaska communities, a relatively small percentage of highly productive households in False Pass harvested most of the subsistence resources in the community, which they shared widely with less productive households. In 1987/88, 30.0 percent of the False Pass households harvested 78.0 percent of the community's total take of wild foods. These highly productive households were likely to be involved in commercial fishing, be larger than average, and own boats and smokehouses.

The report reviews harvests and uses of each category of subsistence resources in False Pass in 1987/88, including harvest areas, methods of harvests, and methods of preservation and preparation. Updated harvest data are reported for subsistence salmon and marine mammals based on ongoing harvest monitoring programs.

The final chapter of the report compares subsistence harvests and uses in False Pass in 1987/88 with those of other communities of the Alaska Peninsula and Aleutian/Pribilof Islands. Subsistence harvests in False Pass are similar in size, scope, and composition to those of other small, predominately Alaska Native communities of this region, such as Perryville, Ivanof Bay, Akutan, Nikolski, and Atka. They are larger and more diverse than those of the larger communities of the region, such as Sand Point, King Cove, and Unalaska. Typical of many communities of this region is the removal of resources from commercial catches for a significant percentage of the total harvest for home use (30.8 percent at False Pass). The report concludes that subsistence harvests and uses in False Pass remain a vital sector of the mixed subsistence/cash economy of the community and a foundation of its way of life.

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ACKNOWLEDGMENTS

First and foremost, we thank the people of False Pass for taking the time to participate in this study. The care and patience with which they answered the many questions on the survey form were much appreciated, and are largely responsible for the success of the research. We are grateful to the False Pass Village Council for granting us permission to conduct the interviews. Individuals in the community who provided special assistance included Gilda Shellikoff, Borge Larsen, and Per Jonnson. Gilda Shellikoff also facilitated community review of a draft of this report. We also thank Carol Bamhill of the Division of Habitat and Restoration, ADF&G, who prepared the maps which appear in this report, and division research director Bob Wolfe, who provided comments on an earlier draft of this technical paper. Any errors that may remain in this report remain the responsibility of the authors.

CHAPTER ONE: INTRODUCTION

This report provides an overview of contemporary subsistence uses of fish and wildlife in the village of False Pass, a predominantly Aleut community on Unimak Island, southwest Alaska (Fig. 1). False Pass had a year-round population of 69 in November 1988, when most of the research for this report was conducted. The primary source of information is a systematic household survey conducted in the community by two Division of Subsistence researchers. Twenty of the 22 permanent households were interviewed. Harvest data pertain to a 12-month study year from November 1987 through October 1988. Earlier, in April 1982, a division researcher mapped subsistence harvest areas with the assistance of several False Pass residents (ADF&G 1985).[1]

RESEARCH OBJECTIVES

A goal of the research conducted in False Pass in November 1988 was to interview representatives of every village household about their harvest and use of wild resources during the 12 month study period from November 1987 through October 1988. Specific research objectives included the following:

1. Estimates of annual subsistence harvest quantities of wild fish, game, and plant resources in numbers of animals or fish (or other appropriate units) and in pounds edible weight.
2. Percentage of community households that used, attempted to harvest, harvested, received, and gave away each type of wild food during the study year.
3. Salmon and other fish harvests by species and by gear type, including numbers of fish removed from commercial catches for home use.
4. Demographic data on each household member, including age, sex, birthplace, length of residency, and ethnicity.
5. Information on jobs held by adult members of the community, including job type, employer, months employed, place of employment, and amount earned.
6. Estimates of monthly household expenses.

[1] Completion of thii technical paper was delayed by state General Fund budget cuts and consequent staff reductions or reassignments. Also, research in False Pass took place just a few months before the *Exxon Valdez* oil spill (March 24. 1989). Responding to the effects of the spill (which did not affect the False Pass area) required most of the personnel resources of the division's Anchorage office, as has subsequent research in the spill area. Preliminary harvest and use data from the household survey was provided to the False Pass Village Council in 1989. Findings from the survey have also been available in sevem1 editions of the Community Profile Database (Scott et al. 1995). We apologize for any inconvenience that the delay of the completion of this report might have caused.

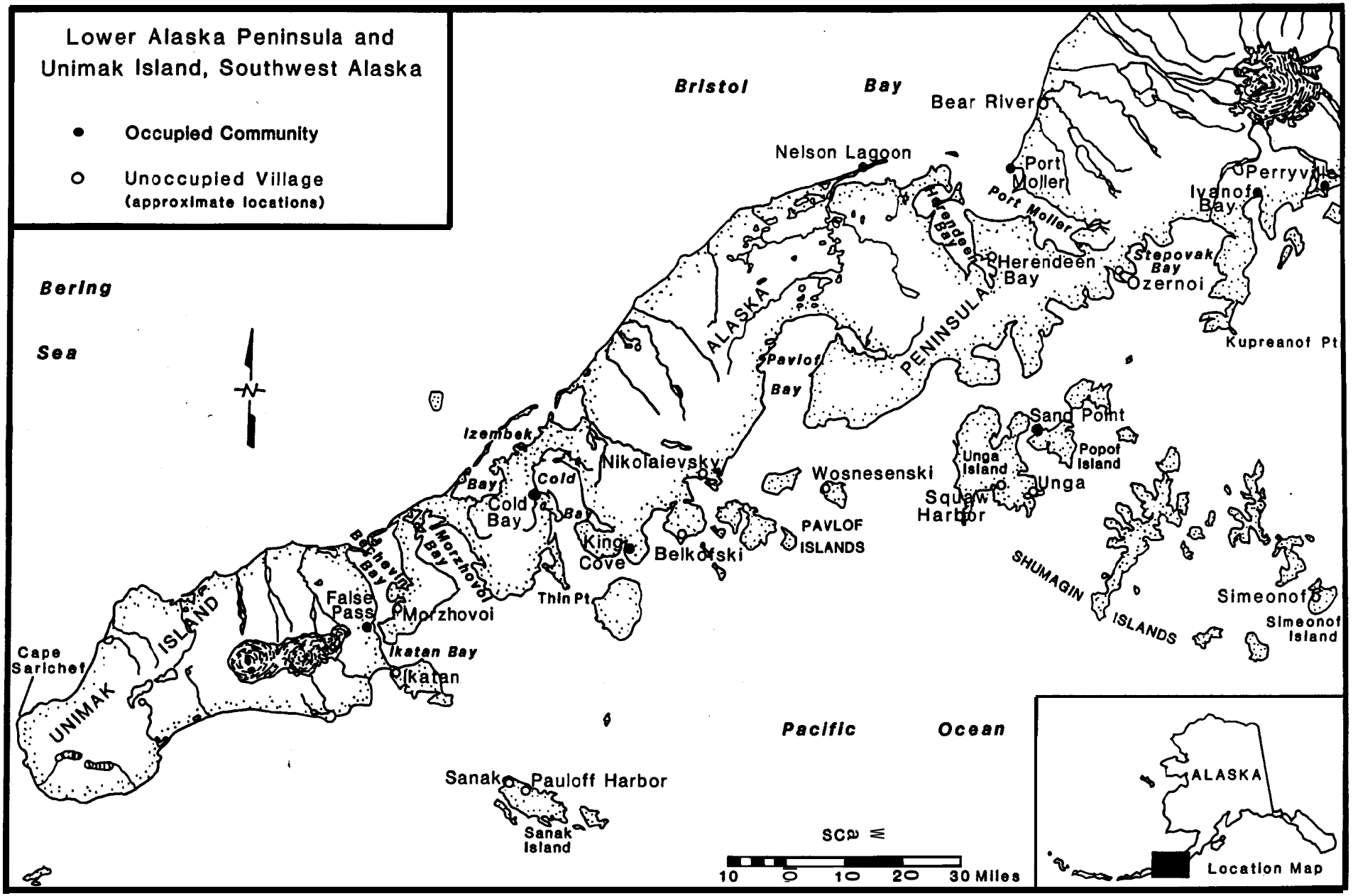


Figure 1. Lower Alaska Peninsula and Unimak Island, Southwest Alaska

DATA COLLECTION METHODS

The primary method of data collection was a household survey using a questionnaire similar to those administered by the division throughout the state (Appendix A). After reviewing a draft of the survey form, the False Pass Village Council granted preliminary approval to conduct the research. This approval was affirmed by the council president at the beginning of the field research. Then, two division researchers (Stanek and Fall) interviewed knowledgeable representatives of False Pass households during a visit to the community from November 9 to November 12, 1988. After listening to an explanation of the project each household chose whether or not to participate in the interview. In total, 20 of the community's 22 households (90.9 percent) were interviewed (Table 1). This represents 90.9 percent of the village's year-round population during the study year. One household decided not to participate in the project and one was not available while the research was underway.

Table 1. Survey Achievement, False Pass, November 1988

Total Number of Households	22
Number of Households Interviewed	20 (90.9 percent)
Number of Households, Failed to Contact	1 (4.5 percent)
Number of Households, Declined to be Interviewed	1 (4.5 percent)

In addition to collecting data on the survey forms, the researchers maintained detailed field notes with supplemental information as provided by each household. This included, for example, data on timing of harvests, preservation methods, and genealogy.

Following the field work, the survey data were coded by the researchers for computer entry and analysis. Harvests in numbers of animals, fish, gallons, or buckets were converted to pounds edible weight using the standard factors listed in Appendix B. Jobs were classified by occupational type and employer type using categories defined by the US Department of Commerce (Appendix C).

Since the completion of the household surveys in False Pass in 1988, other data on subsistence harvests in the community have been collected. One source is subsistence salmon harvest estimates based upon permits returned to the ADF&G Division of Commercial Fisheries Management and Development (McCullough et al. 1995). A second is estimates of subsistence harbor seal and sea lion harvests from household surveys conducted by a local research assistant for the Division of Subsistence (Wolfe and Mishler 1996). This updated information is included in this report.

PREVIOUS RESEARCH AND OTHER SOURCES OF INFORMATION

Previous research on contemporary patterns of subsistence use of wild resources in False Pass has been minimal. The division's household survey in November 1988 was the first of its kind in any Aleutian Island community, while the division's research in 1982 provided the only maps of subsistence harvest areas for the village. Langdon's (1982) detailed discussion of False Pass residents' involvement in commercial fisheries is based on field work conducted in the summer of 1981 and on examination of a variety of primary and secondary written source materials. This work also provides a historical sketch of the community, a description of community facilities in the early 1980s, and a brief overview of subsistence uses based on interviews with six household heads (Langdon 1982222-224).

Several reports discuss general patterns of subsistence uses of fish and wildlife resources in lower Alaska Peninsula and Aleutian/Pribilof island communities in the 1970s, 1980s, and early 1990s. These include: Braund et al. (1986a) and Fall et al. (1993a) on King Cove; Fall et al. (1993b) on Sand Point); Braund et al. (1986b) on Akutan, St. George, and St. Paul; Veltre and Veltre on St. George and St. Paul (1981), Unalaska (1982), and Atka (1983); and Stanek (forthcoming) on Nelson Lagoon. Also, the Division of Subsistence has conducted comprehensive household harvest surveys in Akutan, Nikolski, Unalaska, Atka, Saint Paul, and Saint George. The results appear in the Community Profile Database (Scott et al. 1995) and selected findings are included in this report for comparative purposes.

ORGANIZATION OF THE REPORT

Four chapters follow this introduction. Chapter Two is an brief overview of the False Pass area and its history. This chapter also describes community facilities and village government. The next two chapters contain the findings of the November 1988 household survey. Chapter Three wncems community demography, cash employment, income, and household expenses. In Chapter Four, characteristics of wild resource uses in False Pass in 1987188 are discussed, although with more recent data. Chapter Five concludes the report with general observations about subsistence uses in False Pass and compares these characteristics with those of other southwest Alaska communities.

CHAPTER TWO: HISTORICAL AND CONTEMPORARY BACKGROUND

HISTORY

When European explorers and traders arrived in the Aleutian Islands in the mid eighteenth century, the area surrounding present day False Pass, including the lower Alaska Peninsula southwest of Port Moller and the Shumagin Islands, as well as the entire Aleutian Islands chain, was occupied by the Aleuts (Aleut *Unangan*). Estimates of the precontact Aleut population range from 12,000 to 20,000 people (Lantis 1984:163). The Aleuts of the lower Alaska Peninsula were called the "*Alagsgin*," while those of Unimak Island and the Sanak Islands were the Quagagin ("The Easterners') and those of the Shumagin Islands were the Qawaqngin ("Those Beyond the Easterners") (Black 1980:82-83). According to Laughlin (1980), the Aleuts had occupied this territory for at least 4,000 years, and perhaps as much as 9,000 years. In precontact times, much like today, Aleut subsistence activities were oriented towards the sea. Major resources included whales, seals, sea lions, sea otters, salmon, halibut, cod, flounder, herring, sculpins, sea urchins, clams, limpets, mussels, octopus, ducks, geese, cormorants and other sea birds, bird eggs, and wild plants such as berries, wild parsnip, and kelp. The Aleuts living on and near the Alaska Peninsula and Unimak Island also had access to caribou and brown bear (Lantis 1984:174-176).

The first recorded contact between the Aleuts and Europeans occurred in the Shumagin Islands during Bering's expedition for Russia in 1741. Although they often met armed resistance from the Aleuts, the Russians established control of the Aleutian and Shumagin islands and the lower Alaska Peninsula Aleut communities by the close of the 18th century (Black 1980). The Russian trading companies forced Aleut men to take part in commercial sea otter hunting expeditions which often ranged far from their home villages, leaving their families without adequate food. Disease, warfare, malnutrition, and exposure during periods of servitude caused an 80 to 90 percent drop in the Aleut population by the early 19th century (Lantis 1984:163).

Langdon (1982:198-200) reviews the early history of the Unimak Island vicinity and the community of False Pass. Unimak Island was first explored for the Russians by Glotov in 1759. In precontact times and the early Russian period, there were numerous Aleut settlements on Unimak Island. Twelve were reported for 1840, although none of these was at the present site of today's community of False Pass. There were also several settlements on Sanak Island. Due to population decline and the efforts of Russian traders and Orthodox priests, consolidation and relocation of the Aleut population continued for much of the 19th century. Aleuts from Unimak Island consolidated at Morzhovoi (at the western tip of the Alaska Peninsula) and on Sanak Island. In 1823, many Sanak Islanders moved to Belkofsky on the Alaska Peninsula (Langdon 1982:198-199).

In 1890, the US Census report for Alaska described the settlement of Morzhovoi as follows (Applegate 1893:87):

> At the western extremity of the Alaskan peninsula, in a wve opening into Morzhovoi or Issanak strait, there is a native settlement inhabited by about 60 Aleuts, who make a good living in hunting sea otters on both sides of the peninsula, and trapping foxes and land otters on their own shore and on Unimak Island. Both bears and reindeers [sic; i.e. caribou] are numerous here, and food fishes exist in the usual abundance. Morzhovoi has a good trading store, and has also been selected as headquarters by a number of white sea-otter hunters owning several smart schooners, which skip in and out through the shallow and intricate northern entrance of the strait, which is practically impassable for larger craft and skippers not possessed of the most intimate local knowledge.

The 1890 Census report noted the following about Unimak Island (Applegate 1893:88):

> The earlier Russian visitors also reported 11 populous villages of natives on [Unimak Island], but these inhabitants were either killed or carried away to the eastward as hunters and never returned. The sites of these settlements can still be clearly traced, but at present this large island, with its abundance of natural resources, is only rarely visited by hunters in quest of bear or reindeer [i.e. caribou].

After the transfer of Alaska to the United States, a salt cod fishery developed in the eastern Aleutians beginning in 1876. Shore processing facilities were established on Sanak Island, and Aleuts began their involvement in commercial fishing. In the early 20th century, the commercial salmon industry expanded into the False Pass area. The first local cannery was built at Ikatan in 1916 (Fig. 1). At about this time, an American homesteaded at the present site of False Pass. In 1917, the cannery at Motzhovoi was moved to False Pass (Langdon 1982, Strickland 1996). Consequently, during the 1930s and 1940s, Aleuts from Motzhovoi and Ikatan began working in and moving to False Pass. Scandinavian fisherman and cannery workers also seffled in the village. According to a village resident interviewed in 1988, the last Aleut family left Morzhovoi for False Pass in the early 1960s. At about the same time, Ikatan was abandoned as a year-round community, with residents moving to False Pass, King Cove, and Sand Point. The population of the village of Pauloff Harbor on Sanak island (also called "Pavlof Harbor" and 'Panloff Harbor" in US Census records) relocated to Sand Point and to a lesser extent to False Pass (Langdon 1982: 199-200). Table 2 provides a population history of communities in the False Pass area from the first US Census in Alaska in 1880 to 1995. Approximate locations of former settlements appear on Figure 1.

According to Langdon (1982:200), the cannery at False Pass was never a large operation, although it provided an important source of cash incomes for some False Pass residents. The cannery closed in 1974, but reopened in 1977. Much of this facility was destroyed by fire in 1981, putting an end to fish processing in the community. Processing facilities had not been rebuilt at the time of the present study in 1988, although a processor (Peter Pan Seafoods) operated commercial fishing support facilities at False Pass (see next section).

Table 2. Population of the Lower Alaska Peninsula and Unimak Island Area, 1880 - 1995

Community	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	1995
Belkofski	268	185	147		129	123	140	119	57	59	10	0	0
Cold Bay									86	256	228	148	107
Company Harbor					45	22							
False Pass[1]						59	88	42	41	62	70	69	73
Herendeen Bay					51		13						
Ikatan								29					
King Cove							135	162	290	283	460	677	716
Korovinsky		41											
Nelson Lagoon										43	59	83	88
Morshovoi[2]	100	68			60	22	17						
Nikolaievsky	43												
Ozernoi		45											
Pavlof Harbor[3]					62	52	61	68	77	39	0		
Popof Island[4]	7	146			98								
Port Moller[5]	40						45	33					
Sanak		132					39						
Sand Point			16		60	69	99	107	254	360	625	878	844
Simeonof Island							13						
Squaw Harbor								45		65	6		
Thin Point		231											
Unga	185	159	175	108	313	150	152	107	43		0		
Unga Island (other)							79						
Wosnesenski[6]	43												

[1] Called "Unimak Village" in 1930 and 1940.

[2] Called "Protassof" in 1880 census (cf. Orth 1967:659).

[3] Called "Panloff Harbor" in 1920; Pauloff Harbor in 1950 and 1980.

[4] Also includes Pirate Cove (1920).

[5] Called "Mashikh" in 1880.

[6] Also called "Voznesensky"

Sources: Rollins (1978) for 1880 - 1970; Alaska Department of Labor (1989) for 1980; Alaska Department of Labor (1996) for 1990 - 1995

COMMUNITY FACILITIES AND GOVERNMENT

The community of False Pass is located on the eastern shore of Unimak Island, the eastern-most island in the Aleutian Chain, at the northern end of Isanotski Strait. The Aleut name for the community is Isanax, meaning "gap" or "hole" (Bergsland 1994:597).[1] The western-most tip of the Alaska Peninsula lies one mile across the strait, while Bechevin Bay is just to the north. By air, False Pass is 35 miles from Cold Bay, the nearest community with major airline service. Public lands near False Pass are within the Alaska Maritime National Wildlife Refuge and the Izembek National Wildlife Refuge.

At the time of the household survey in November 1988, there were 22 year-round households in False Pass. Eight families lived in recently-completed "HUD homes" (US Department of Housing and Urban Development), and the remainder lived in older dwellings or in facilities provided by Peter Pan Seafoods.

In 1988, community facilities were limited. As noted above, the local cannery burned in 1981, and there was no longer fish processing on site. Peter Pan Seafoods ran commercial fisheries services at False Pass which also serviced local residents. These included a store (which did not accept food stamps), two cabin rentals, one three-bedroom facility, and a bunkhouse that could sleep 40 people. There were also fueling facilities and a crab pot storage. Local residents were tied in to the facility's water supply. The company employed a year-round caretaker.

In 1988, the community had plans to extend the dock in order to expand the range of services it could provide to commercial fishermen. This expansion was completed in 1992 with the construction of a 175-foot dock (Strickland 1996).

Other community facilities in 1988 included a village corporation building with two living units. A separate building housed the village council office (with a secretary) and a clinic with a health aid and alternate.[2] The Aleutian Pribilof Islands Association (APIA) (which is based in Anchorage) employed a local "fee agent" to assist community residents with various administrative matters. APIA also administered an energy assistance program. The False Pass school provided instruction for grades kindergarten through twelve. It had 27 students and two full-time teachers in November 1988.

The local airstrip was separated from the village by a major stream. Community residents reported that the bridges linking the airstrip to the village were frequently washed out by floods. (One was washed out at the time of the research.) There was a community diesel-powered electric plant called False Pass Electric Company.

At the time of the study, False Pass did not have a Russian Orthodox Church building. (There had been a church at the old village of Morzhovoi.) The Orthodox population of the village was serviced

[1] The English language name for the community derives from an early English name for Isanotski Strait, which was believed to be impassable at the northern end (Orth 1967:327).

[2] At the time of publication of this report, one of the living units in the village corporation building had been renovated to accommodate the clinic, which had moved from the village council building.

by priests from Unalaska or $and Point. Employees of the Peter Pan facility had formed the False Pass Community Church (Protestant).

In addition to the new dock, several other facilities have developed in False Pass since the 1988 research. These include a warehouse for indoor storage of fishing gear, a harbor office, and a community center. The school was fully remodeled in 1996, and work was soon to begin on a boat-launch ramp and a new fishing gear and boat storage facility. The city was also constructing a shop facility in 1996 (Strickland 1996, Obeso 199618).

In 1988, False Pass was an unincorporated community governed by a five-member traditional council. The community was incorporated as a second class city in 1991 (Strickland 1996). Beginning in 1988, False Pass has been part of the Aleutians East Borough, which also includes Sand Point, King Cove, Nelson Lagoon, Cold Bay, and Akutan.

CHAPTER THREE: DEMOGRAPHY AND CASH ECONOMY

DEMOGRAPHIC CHARACTERISTICS

Population Characteristics

At the time of the harvest survey in November 1988, community representatives identified 22 year round households living at False Pass.[1] Of these, 20 households with a population of 63 were interviewed. The estimated community population was 69, with 42.9 percent males and 57.1 percent females (Table 3). A population profile for False Pass is presented in Figure 2 and Table 4. Almost half of the population (46.0 percent) was under 20 years of age. As reported in Table 3, the average age of the False Pass population was 25.4 years.

Lenoth of Residency and Birthplace

On average, household heads had resided in False Pass for 22.7 years. The average length of residency for the entire population was 15.1 years (Table 3).

For this research, birthplace was defined as the domicile of the individual's parents at the time of the individual's birth. Of the adult population of False Pass (18 years of age or older), 70.6 percent had been born in the Aleutian Islands/Lower Alaska Peninsula region (Table 5).[2] More specifically, 29.4 percent had been born in False Pass, 11.8 percent in Belkofsky, 11.8 percent in King Cove, 5.9 percent in Sanak, and 2.9 percent each in Akutan, Ikatan, Sand Point, and Unalaska. Only 7.9 percent of the adults living in False Pass had been born in other regions of the state; 23.5 percent were born outside Alaska. A large majority of the entire community population (79.4 percent) had been born in the Aleutian Islands/Lower Alaska Peninsula region, with 50.8 percent born in False Pass. Of the entire False Pass population, 12.7 percent were born outside the state.

Ethnicity

As reported in Table 3, 80.0 percent of the households in False Pass had at least one household head of Alaska Native ancestry. Overall, 84.1 percent of the population was Alaska Native, mostly Aleut.

[1] When thii report was prepared in late 1996, community officials estimated that there were about six families that returned to False Pass seasonally to participate in commercial fishing.

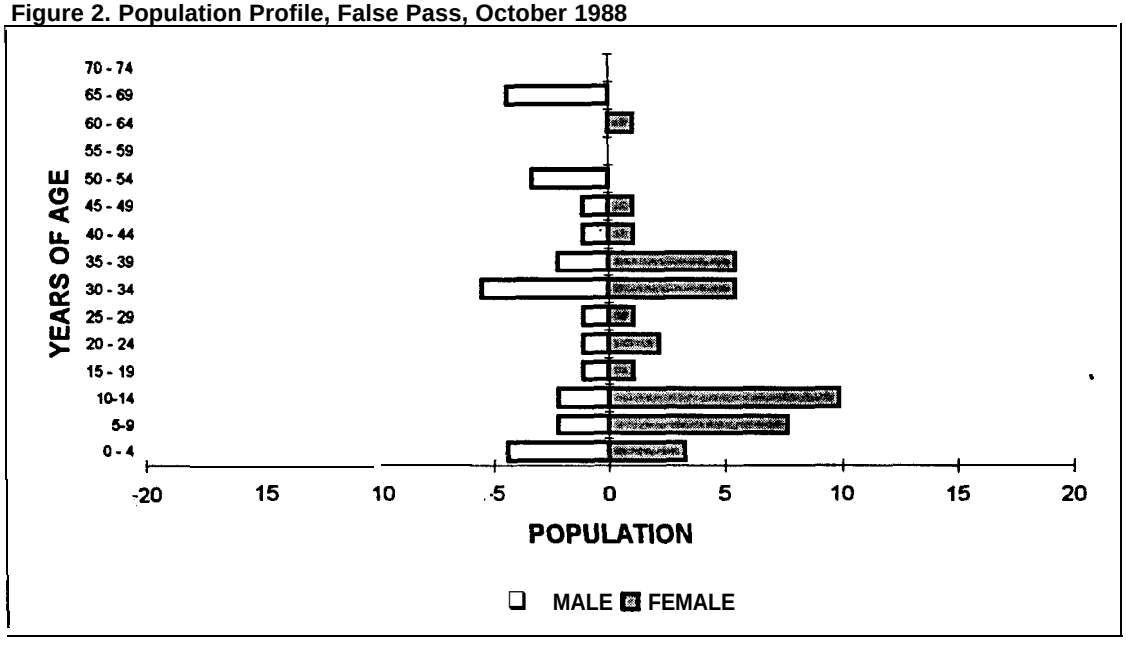
[2] "Lower Alaska Peninsula" included communities within the current boundaries of the Aleutians East Borough.

Table 3. Demographic Characteristics of Households, False Pass, 1987/88

sampled Households	20.00
Number of Households in the Community	22.00
Percentage of Households Sampled	90.9%
Household Size	
Mean	3.15
Minimum	1.00
Maximum	8.00
Sample Population	63.00
Estimated Community Population	69.30
Age	
Mean Number of Years	25.40
Minimum	0.25
Maximum	67.25
Median	23.25
Length of Residency - Population	
Mean Number of Years	15.07
Minimum	0.25
Maximum	67.25
Length of Residency - Household Heads	
Mean Number of Years	22.68
Minimum	0.88
Maximum	67.25
Sex	
Males	
Number	29.70
Percentage	42.9%
Females	
Number	39.60
Percentage	57.1%
Alaska Native	
Households (Either Head)	
Number	17.60
Percentage	80.0%
Estimated Population	
Number	58.30
Percentage	84.1%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988.

Figure 2. Population Profile, False Pass, October 1988



SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Table 4. Population Profile, False Pass, October 1988

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	4.40	14.81%	14.81%	3.30	8.33%	8.33%	7.70	11.11%	11.11%
5-9	2.20	7.41%	22.22%	7.70	19.44%	27.78%	9.90	14.29%	25.40%
10-14	2.20	7.41%	29.63%	9.90	25.00%	52.78%	12.10	17.46%	42.86%
15 - 19	1.10	3.70%	33.33%	1.10	2.78%	55.56%	2.20	3.17%	46.03%
20 - 24	1.10	3.70%	37.04%	2.20	5.56%	61.11%	3.30	4.76%	50.79%
25 - 29	1.10	3.70%	40.74%	1.10	2.78%	63.89%	2.20	3.17%	53.97%
30 - 34	5.50	18.52%	59.26%	5.50	13.89%	77.78%	11.00	15.87%	69.84%
35 - 39	2.20	7.41%	66.67%	5.50	13.89%	91.67%	7.70	11.11%	80.95%
40 - 44	1.10	3.70%	70.37%	1.10	2.78%	94.44%	2.20	3.17%	84.13%
45 - 49	1.10	3.70%	74.07%	1.10	2.78%	97.22%	2.20	3.17%	87.30%
50 - 54	3.30	11.11%	85.19%	0.00	0.00%	97.22%	3.30	4.76%	92.06%
55 - 59	0.00	0.00%	85.19%	0.00	0.00%	97.22%	0.00	0.00%	92.06%
60 - 64	0.00	0.00%	85.19%	1.10	2.78%	100.00%	1.10	1.59%	93.65%
65 - 69	4.40	14.81%	100.00%	0.00	0.00%	100.00%	4.40	6.35%	100.00%
70 - 74	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
TOTAL	29.70	42.86%		39.60	57.14%		69.30	100.00%	

Table 5. Birthplaces of False Pass Residents, 1987188

‘lace	Adults (>18 years old) Estimated Number	Percentage	Entire Population Estimated Number	Percentage
Aleutian Islands/Lower Alaska Peninsula Region	26	70.6%	55	79.4%
Akutan	1	2.9%	1	1.6%
Belkofsy	4	11.8%	4	6.3%
False Pass	11	29.4%	35	50.8%
Ikatan	1	2.9%	1	1.6%
King Cove	4	11.8%	7	9.5%
Sanak	2	5.9%	2	3.2%
Sand Point	1	2.9%	3	4.8%
Unalaska	1	2.9%	1	1.6%
Other Alaska	2	5.9%	6	7.9%
Outside Alaska	9	23.5%	9	12.7%
Total	37	100.0%	69	100.0%

Source: Alaska Department of Fish and Game, Divison of Subsistence Household Survey, 1988

EMPLOYMENT PATTERNS

General Characteristics of Employment

Table 6 reports the general characteristics of cash employment among False Pass households during the 1987/88 study year. Of the estimated number of adults in the community (defined as individuals 16 years of age or older), 77.1 percent held a cash earning job during at least one month of the study period. The remainder were students, homemakers, or retired. Employed adults lived in 90 percent of the households, with an average of about 1.5 employed persons per employed household. These 27 individuals held a total of 56 jobs for all or portions of the study year, an average of 1.9 jobs per employed adult. The average number of jobs per employed household was 2.8.

During the study year, cash employment had a seasonal pattern at False Pass. On average, adults with jobs were employed in 8.1 months during the study year. Thirty-seven percent of employed adults worked year-round.

Table 7 classifies the jobs held by adults in False Pass during the study period by employer type. Of all jobs, the most, 31.4 percent were in commercial fishing. The second largest source of employment was in the manufacturing (fish processing) category,[3] with 15.7 percent, followed by the local government category with 13.7 percent and local education with 9.8 percent. Of all employed adults, the most (51.9 percent) held at least one commercial fishing job during the study year. Over 70 percent of the employed households (72.2 percent) had commercial fishermen. The manufacturing category of employers ranked second with 29.6 percent of employed adults, and local government ranked third with 25.9 percent.

Table 8 classifies jobs held by False Pass residents in 1987/88 by occupation type. The largest percentage of jobs were classified by occupation as commercial fishermen, at 31.4 percent; of all employed adults, 51.9 percent were commercial fishermen. Ranking second were clerical, administrative, and sales workers (25.5 percent of jobs, 40.7 percent of employed adults), with transportation and material moving workers third (17.6 percent of jobs; 25.9 percent of employed adults) and service workers fourth (13.7 percent of jobs; 22.2 percent of employed adults).

Commercial Fishing

As just noted, most False Pass households were engaged in commercial fishing during the 1987/88 study period. The majority of employed adults held jobs as commercial fishermen and most jobs in the community were in this industry. As reported in Table 9, most commercial fishing activity was for salmon, with 65 percent of all households engaged in commercial salmon fisheries. Halibut ranked second, with 25 percent of all False Pass households. Other commercial fisheries in which False Pass residents participated in 1987188 included herring (20 percent of households), Tanner crab (15 percent),

[3] As noted above, fish processing dii not take place in False Pass during the study year. Most of these jobs were linked to services provided by the fish processing company at False Pass. (See Chapter Two.)

Table 6. Employment Characteristics, False Pass, 1987188

Characteristics	
Il Adults (16 years or older)	
Number	38.5
Mean Weeks Employed	27.2
Employed Adults	
Number	29.7
Percentage of All Adults	77.1%
Jobs	
Number	56.1
Mean	1.9
Minimum	1.0
Maximum	7.0
Months Employed	
Mean	8.1
Minimum	2.0
Maximum	12.0
Percent Employed Year-Round	37.0%
Mean Weeks Employed	35.3
Households	
Number	22.0
Employed	
Number	19.8
Percentage	90.0%
Jobs per Employed Household	
Mean	2.8
Minimum	1.0
Maximum	7.0
Employed Adults	
Minimum	1.0
Maximum	3.0
Mean	
Employed Households	1.5
Total Households	1.4
Mean Weeks Employed	47.6

SOURCE: Alaska Department of Fish and Game, Division of Subsistence,

Table 7. Employment by Industry, False Pass, 1987/88

	Percentage of			
	Jobs	Employed Households	Employed Adults	Earned Income*
Estimated Total Number	56	20	30	$49,787
Agriculture, Forestry, Fishing	0.0%	0.0%	0.0%	67.5%
Agriculture/Forestry	0.0%	0.0%	0.0%	0.0%
Agriculture	0.0%	0.0%	0.0%	0.0%
Forestry	0.0%	0.0%	0.0%	0.0%
Fishing, Hunting, Trapping	33.3%	72.2%	51.9%	67.5%
Hatchery/Enhancement	0.0%	0.0%	0.0%	0.0%
Commercial Fishing	31.4%	72.2%	51.9%	67.2%
Hunting/Trapping (for furs)	2.0%	5.6%	3.7%	0.3%
Mining	0.0%	0.0%	0.0%	0.0%
Construction	0.0%	0.0%	0.0%	0.0%
Manufacturing	15.7%	27.8%	29.6%	19.6%
Cannery	15.7%	27.8%	29.6%	19.6%
Other Manufacturing	0.0%	0.0%	0.0%	0.0%
Logging/Timber	0.0%	0.0%	0.0%	0.0%
Transportation, Communications, and Utilities	2.0%	5.6%	3.7%	0.8%
Trade	0.0%	0.0%	0.0%	0.0%
Wholesale	0.0%	0.0%	0.0%	0.0%
Retail	0.0%	0.0%	0.0%	0.0%
Finance, Insurance, and Real Estate	7.8%	16.7%	11.1%	2.1%
Services	9.8%	22.2%	14.8%	2.5%
Government	31.4%	61.1%	48.1%	7.5%
Federal	5.9%	11.1%	[illegible]	1.7%
State	2.0%	5.6%	3.7%	2.2%
Local	23.5%	55.6%	40.7%	3.6%
Local Government	13.7%	38.9%	25.9%	2.6%
Local Education	9.8%	22.2%	14.8%	1.0%
Unknown	0.0%	0.0%	0.0%	0.0%

* Mean household earned income.

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Table 8. Employment by Occupation Type, False **Pass,1987/88**

Occupations	Percentage of			
	Jobs	Employed Households	Employed Adults	Earned Income'
Estimated Total Number	56	20	30	$49,787
Professional, Technical, and Managerial	3.9%	11.1%	7.4%	1.3%
Teachers	3.9%	11.1%	7.4%	0.3%
Clerical, Administrative and Sales Workers	25.5%	50.0%	40.7%	7.5%
Service Workers	13.7%	33.3%	22.2%	20.7%
Commercial Fishers	31.4%	72.2%	51.9%	67.2%
Hunters and Trappers (for furs)	2.0%	5.6%	3.7%	0.3%
Plant and System Operators	2.0%	5.6%	3.7%	0.1%
Transportation and Material Moving Workers	17.6%	38.9%	25.9%	2.7%

. Mean household earned income.

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Table 9. Household Involvement in Commercial Fisheries, False Pass, 1987188

:ommercialFishery	Percentage of Households with a Member Participating
my Fishery	65.0%
Salmon	65.0%
Pacific Cod	10.0%
Halibut	25.0%
Herring	20.0%
Tanner Crab	15.0%
King Crab	15.0%

king crab (15 percent), and cod (10 percent). (For a discussion of commercial fishing in the community of False Pass in the late 1970s and early 1980s, the reader should consult Langdon [1982:203-221]).

Monetary Income

Survey respondents in False Pass were asked to estimate the annual cash income from each job held by adult members of their households. They also estimated incomes from other sources. As reported in Table 10, earnings from jobs averaged $49,787 per household ($15,806 per capita) for the study period. Of this, 67.2 percent was earned from commercial fishing, an average of $33,475 per household (Table 7, Table 10). Income from jobs in the manufacturing category of employers ranked second ($9,760 per household; 19.6 percent), and all government jobs combined ranked third ($3,719 per household; 7.5 percent).

False Pass households obtained, on average, an additional $4,640 ($1,473 per capita) from non-employment sources in the 1987188 study year (Table 11). Permanent fund dividend checks provided almost half (47.3 percent) of this amount. One quarter of the households received energy assistance and Native Corporation dividends. Very few households received benefits in the form of transfer payments such as aid to families with dependent children or unemployment.

In sum, the total mean household income from all sources in False Pass was $54,428 during the study year, $17,279 per capita (Table 10). Of this, 91.5 percent was from jobs and the remainder from other sources. Commercial fishing accounted for 61.5 percent of all income in False Pass in 1987/88 (Fig. 4).

Household Expenses

Survey respondents in False Pass were asked to estimate their monthly household expenses for seven categories listed in Table 12. The highest monthly expense was food, with a mean of $480.80 per household per month and a range from $100 to $1,000 per month. Heating fuel was next with an average of $131 .10 per month, followed by monthly telephone bills at $104.25. Electricity cost each household on average $91.70 each month. In total, the average monthly cost per household for these seven items was $911.80 in the 1987188 study year.

Table 10. Community, Household, and Per Capita Incomes, All Sources and by Employer Types, False Pass, 1987188

ncome Source	Community Total	Average Household	Per Capita
All Sources	$1,197,409.21	$54,427.69	$17,278.63
Earned Income	1,095,324.63	49,787.48	15,805.55
Agriculture, Forestry, Fishing	739,756.60	33,625.30	10,674.70
Agriculture/Forestry	0.00	0.00	0.00
Agriculture	0.00	0.00	0.00
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	739,756.60	33,625.30	10,674.70
Hatchery/Enhancement	0.00	0.00	0.00
Commercial Fishing	736,450.00	33,475.00	10,626.98
Hunting/Trapping (furs)	3,306.60	150.30	47.71
Mining	0.00	0.00	0.00
Construction	0.00	0.00	0.00
Manufacturing	214,720.00	9,760.00	3,098.41
Cannery	214,720.00	9,760.00	3,098.41
Other Manufacturing	0.00	0.00	0.00
Logging/Timber	0.00	0.00	0.00
Transportation, Communications, and Utilities	8,580.00	390.00	123.81
Trade	0.00	0.00	0.00
Wholesale	0.00	0.00	0.00
Retail	0.00	0.00	0.00
Finance, Insurance. and Real Estate	23,298.00	1,059.00	336.19
Services	27,143.60	1,233.80	391.68
Government	81,826.43	3,719.38	1,180.76
Federal	18,120.30	823.65	261.48
State	24,200.00	1,100.00	349.21
Local	39,506.13	1,795.73	570.07
Local Government	28,726.13	1,305.73	414.52
Local Education	10,780.00	490.00	155.56
Unknown	0.00	0.00	0.00
Other Income	$102,084.58	$4640.21	$1,473.08

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Table 11. Community, Household, and Per Capita Other Income by Source, False Pass, 1987/88

Source	Percentage of Households Reporting	Community Total	Average per Household	Per Capita
All Other Income Sources		$102,084.58	$4,640.21	$1,473.08
Aid to Families with Dependent Children	*	$11,250.80	$511.40	$162.35
Adult Public Assistance	0.0%	$0.00	$0.00	$0.00
Pension/Retirement	*	$6,652.80	$302.40	$96.00
Longevity Bonus	*	$6,875.00	$312.50	$99.21
Social Security	*	$16,090.80	$731.40	$232.19
Energy Assistance	25.0%	$4,284.50	$194.75	$61.83
Food Stamps	0.0%	$0.00	$0.00	$0.00
Unemployment	*	$2,200.00	$100.00	$31.75
Native Corporation Dividend	25.0%	$6,432.80	$292.40	$92.83
Child Support	0.0%	$0.00	$0.00	$0.00
Disability	0.0%	$0.00	$0.00	$0.00
Alaska Permanent Fund Dividend	100.0%	$48,297.88	$2,195.36	$696.94
Other	0.0%	$0.00	$0.00	$0.00

* Less than four households. Number surpressed.

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Figure 3. Cash Income by Source, False Pass, 1987/88

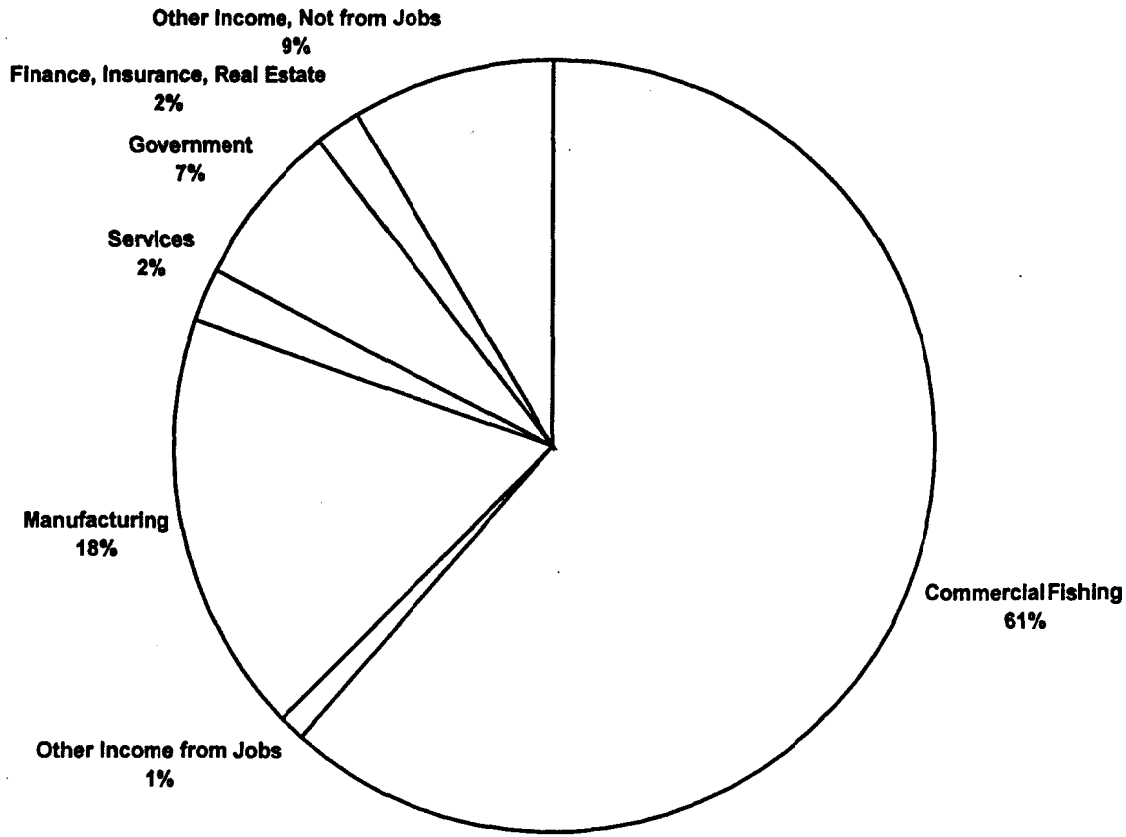


Table 12. Estimated Monthly Household Expenses, False Pass, 1987/88

Household C	Mean	Minimum	Maximum
Heating Fuel	$131.10	$0.00	$600.00
Transportation Fuel	$41.95	$0.00	$260.00
Housing	$58.50	$0.00	$400.00
Food	$480.80	$100.00	$1 ,000.00
Water	$3.50	$0.00	$10.00
Electricity	$91.70	$0.00	$300.00
Telephone	$104.25	$0.00	$104.25
Total Monthly Expense	$911.80	$112.00	$1,710.00

Source: Alaska Department of Fish and Game, Division of Subsistence Household Survey 1988

CHAPTER FOUR: RESOURCE HARVEST AND USE PATTERNS

SPECIES USED AND HARVESTED AND LEVELS OF PARTICIPATION IN THE HARVEST AND USE OF WILD RESOURCES

In 1987/88 False Pass residents used a minimum of 59 kinds of wild resources for subsistence purposes (Table 13). (See Appendix B for a list of resources, scientific names, and conversion factors.) This total includes at least 19 kinds of fish, 11 kinds of mammals, 13 kinds of marine invertebrates, and 12 kinds of birds and eggs. Detailed data were not collected on types of plants, but at least four kinds were used. As reported in Table 14, on average False Pass households used 22.6 kinds of wild resources, attempted to harvest 14.6 kinds, and harvested 14.0 kinds. In addition, the mean number of resources received per household was 13.1 and the mean number given per household was 9.7 kinds. One of the oldest persons in the community commented on this diversity, explaining, "That's what we're living here for, so we can use all these different kinds of things."

As shown in Table 13, Table 14, and Figure 4, the use and harvest of wild resources was universal in False Pass in 1987188, with all of the households using, attempting to harvest, and harvesting fish, game, or wild plants. Also, every household received wild resources from successful harvesters in other households, and 95.0 percent of the households gave away portions of their catches, or redistributed resources they had received from others, to people in other households or communities.

In terms of resource categories, every household in False Pass used salmon, fish other than salmon, marine invertebrates, and wild plants during the 1987188 study year, while 90.0 percent used birds and land mammals. Sixty percent of the households used marine mammals, and 15 percent used fur-bearers. The most commonly used resources were coho salmon and berries, both used by every household. Other resources used by three quarters or more of the households included sockeye salmon (95.0 percent), halibut (95.0 percent), caribou (90.0 percent), ptarmigan (90.0 percent), octopus (90.0 percent), plants other than berries (90.0 percent), chitons (85.0 percent), king salmon (75.0 percent), Dolly Varden (75.0 percent), and king crab (75.0 percent) (Table 13, Fig. 4).

In 1987/88, every False Pass household harvested wild plants, while 86.0 percent harvested marine invertebrates and 70.0 percent caught fish other than salmon. In addition, 70.0 percent of the households harvested birds or eggs, 65.0 percent of the households caught salmon, 40.0 percent took land mammals (35.0 harvested big game), 30.0 percent successfully hunted for marine mammals, and 15.0 percent trapped furbearers. On the individual resource level, 90.0 percent of the households harvested berries and 90.0 percent also harvested other plants. Other resources harvested by at least half the households included chitons (75.0 percent), ptarmigan (65.0 percent), halibut (65.0 percent), coho salmon (60.0 percent), sockeye salmon (55.0 percent), and pink salmon (50.0 percent) (Table 13, Fig. 4).

Table 13. Estimated Harvest and Use of Fish, Game, and Plant Resources, False Pass, 1987/88

Resource Name	Percentage of Households					Pounds Harvested			Amount Harvested[1]		95% Conf Limit (+/-)
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest
All Resources	100.0	100.0	100.0	100.0	95.0	28,586.1	1,299.4	412.5			18.17%
Fish	100.0	80.0	80.0	95.0	90.0	17,573.3	798.8	253.6			18.15%
Salmon	100.0	65.0	65.0	80.0	60.0	13,384.8	608.4	193.1	2,997.5	136.3	21.15%
Chum Salmon	70.0	45.0	45.0	35.0	30.0	2,579.5	117.3	37.2	550.0	25.0	28.76%
Coho Salmon	100.0	60.0	60.0	80.0	35.0	4,326.2	196.6	62.4	727.1	33.1	23.17%
Chinook Salmon	75.0	35.0	35.0	50.0	35.0	1,164.2	52.9	16.8	99.0	4.5	33.01%
Pink Salmon	65.0	50.0	50.0	25.0	30.0	1,848.9	84.0	26.7	733.7	33.4	28.17%
Sockeye Salmon	95.0	55.0	55.0	50.0	45.0	3,441.0	156.4	49.7	877.8	39.9	25.59%
Spawnouts, Salmon	20.0	10.0	10.0	15.0	5.0	24.9	1.1	0.4	9.9	0.5	43.73%
Non-Salmon Fish	100.0	70.0	70.0	75.0	75.0	4,188.5	190.4	60.4			15.70%
Sucker	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Cod	65.0	40.0	40.0	35.0	25.0	1,045.6	47.5	15.1			30.65%
Pacific Tom Cod	5.0	5.0	5.0	0.0	5.0	110.0	5.0	1.6	22.0	1.0	63.11%
Pacific Cod	65.0	40.0	40.0	35.0	25.0	935.6	42.5	13.5	267.3	12.2	30.06%
Burbot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Sablefish	15.0	10.0	10.0	5.0	5.0	308.0	14.0	4.4	88.0	4.0	59.09%
Greenling	10.0	5.0	5.0	10.0	10.0	16.5	0.8	0.2	16.5	0.8	63.11%
Flounder	20.0	10.0	10.0	10.0	5.0	170.5	7.8	2.5	34.1	1.6	51.71%
Sole	20.0	15.0	15.0	5.0	5.0	85.8	3.9	1.2	28.6	1.3	48.94%
Halibut	95.0	65.0	65.0	60.0	60.0	1,410.6	64.1	20.4	87.1	4.0	14.64%
Herring	30.0	5.0	5.0	25.0	5.0	66.0	3.0	1.0	2.2 b	0.1	63.11%
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Rockfish	5.0	5.0	5.0	0.0	5.0	66.0	3.0	1.0	44.0	2.0	63.11%
Sculpin	35.0	25.0	25.0	10.0	20.0	73.7	3.4	1.1	147.4	6.7	29.55%
Smelt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Capelin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Trout and Char	75.0	35.0	35.0	55.0	45.0	945.8	43.0	13.6	2,813.8	127.9	35.87%
Char	75.0	35.0	35.0	50.0	40.0	921.1	41.9	13.3	2,796.2	127.1	36.12%
Dolly Varden	75.0	35.0	35.0	50.0	40.0	921.1	41.9	13.3	2,796.2	127.1	36.12%
Trout	10.0	10.0	10.0	5.0	5.0	24.6	1.1	0.4	17.6	0.8	52.01%
Rainbow Trout	5.0	5.0	5.0	5.0	5.0	20.0	0.9	0.3	14.3	0.7	63.11%
Steelhead	5.0	5.0	5.0	0.0	0.0	4.6	0.2	0.1	3.3	0.2	63.11%
Land Mammals	90.0	50.0	40.0	85.0	35.0	5,500.0	250.0	79.4			27.62%
Big Game	90.0	50.0	35.0	85.0	35.0	5,115.0	232.5	73.8			29.16%
Brown Bear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%

Table 13. Estimated Harvest and Use of Fish, Game, and Plant Resources, False Pass, 1987/88

Resource Name	Percentage of Households					Pounds Harvested			Amount Harvested[1]		95% Conf Limit (+/-)
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest
Caribou	90.0	50.0	35.0	85.0	35.0	5,115.0	232.5	73.8	34.1	1.6	29.16%
Moose	10.0	5.0	0.0	10.0	5.0	0.0	0.0	0.0	0.0	0.0	0.00%
Small Game/Furbearer	15.0	15.0	15.0	0.0	5.0	0.0	0.0	0.0	140.8	6.4	50.41%
Fox	15.0	15.0	15.0	0.0	5.0	0.0	0.0	0.0	104.5	4.8	48.18%
Red Fox	15.0	15.0	15.0	0.0	5.0	0.0	0.0	0.0	104.5	4.8	48.18%
Beaver	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Land Otter	10.0	10.0	10.0	0.0	5.0	0.0	0.0	0.0	5.5	0.3	44.39%
Lynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Mink	10.0	10.0	10.0	0.0	5.0	0.0	0.0	0.0	4.4	0.2	49.10%
Wolf	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	63.11%
Wolverine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Squirrel	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	25.3	1.2	63.11%
Parka Squirrel	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	25.3	1.2	63.11%
Feral Animals	15.0	5.0	5.0	10.0	5.0	385.0	17.5	5.6	1.1	0.1	63.11%
Cattle - Feral	15.0	5.0	5.0	10.0	5.0	385.0	17.5	5.6	1.1	0.1	63.11%
Marine Mammals	60.0	30.0	30.0	55.0	30.0	1,753.4	79.7	25.3			30.01%
Whale	20.0	5.0	5.0	15.0	5.0	55.0	2.5	0.8			63.11%
Gray Whale	20.0	5.0	5.0	15.0	5.0	55.0	2.5	0.8			63.11%
Seal	55.0	30.0	30.0	40.0	30.0	1,478.4	67.2	21.3			32.73%
Fur Seal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Harbor Seal	55.0	30.0	30.0	40.0	30.0	1,478.4	67.2	21.3	26.4	1.2	32.73%
Steller Sea Lion	5.0	5.0	5.0	0.0	5.0	220.0	10.0	3.2	1.1	0.1	63.11%
Sea Otter	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Birds and Eggs	90.0	75.0	70.0	75.0	60.0	1,265.4	57.5	18.3	2,699.4	122.7	23.53%
Birds	90.0	75.0	70.0	75.0	60.0	1,145.3	52.1	16.5	1,898.6	86.3	20.06%
Upland Game Birds	90.0	65.0	65.0	65.0	55.0	611.1	27.8	8.8	1,222.1	55.6	18.09%
Ptarmigan	90.0	65.0	65.0	65.0	55.0	611.1	27.8	8.8	1,222.1	55.6	18.09%
Migratory Birds	85.0	65.0	50.0	75.0	40.0	534.3	24.3	7.7	676.5	30.8	25.33%
Waterfowl	85.0	65.0	50.0	75.0	40.0	534.3	24.3	7.7	676.5	30.8	25.33%
Ducks	80.0	60.0	40.0	50.0	35.0	301.7	13.7	4.4	513.7	23.4	26.24%
Elder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Scoter	5.0	5.0	5.0	0.0	0.0	5.9	0.3	0.1	6.6	0.3	63.11%
Goldeneye	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Scaup	15.0	15.0	15.0	0.0	5.0	23.1	1.1	0.3	33.0	1.5	43.54%
Mallard	65.0	40.0	35.0	40.0	30.0	125.4	5.7	1.8	125.4	5.7	29.76%

Table 13. Estimated Harvest and Use of Fish, Game, and Plant Resources, False Pass, 1987/88

Resource Name	Percentage of Households					Pounds Harvested			Amount Harvested[1]		95% Conf Limit (+/-)
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest
Pintail	25.0	20.0	20.0	5.0	10.0	49.3	2.2	0.7	61.6	2.8	35.24%
Wigeon	5.0	5.0	5.0	0.0	0.0	1.5	0.1	0.0	2.2	0.1	63.11%
Teal	70.0	55.0	40.0	25.0	25.0	78.9	3.6	1.1	262.9	12.0	24.96%
Gadwall	20.0	20.0	20.0	0.0	10.0	17.6	0.8	0.3	22.0	1.0	36.05%
Geese	75.0	35.0	35.0	55.0	20.0	232.5	10.6	3.4	162.8	7.4	32.92%
Brant	50.0	30.0	30.0	25.0	15.0	87.1	4.0	1.3	72.6	3.3	39.07%
Emperor Geese	40.0	25.0	25.0	20.0	15.0	71.5	3.3	1.0	28.6	1.3	32.30%
Canada Geese (general)	50.0	30.0	30.0	30.0	10.0	73.9	3.4	1.1	61.6	2.8	35.28%
Canada Geese, Unknown	50.0	30.0	30.0	30.0	10.0	73.9	3.4	1.1	61.6	2.8	35.28%
Swan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Tundra Swan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Crane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Shorebirds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Seabirds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Puffins	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Gulls	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Eggs	65.0	25.0	25.0	50.0	25.0	120.1	5.5	1.7	800.8	36.4	35.55%
Seabird Eggs	65.0	25.0	25.0	50.0	25.0	120.1	5.5	1.7	800.8	36.4	35.55%
Gull Eggs	65.0	25.0	25.0	50.0	25.0	120.1	5.5	1.7	800.8	36.4	35.55%
Puffin Eggs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Waterfowl Eggs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Duck Eggs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Swan Eggs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Marine Invertebrates	100.0	80.0	80.0	90.0	70.0	1,610.1	73.2	23.2			16.91%
Clams	60.0	30.0	25.0	50.0	25.0	128.7	5.9	1.9			27.23%
Butter Clams	55.0	25.0	15.0	45.0	20.0	59.4	2.7	0.9	19.8 g	0.9	39.04%
Razor Clams	20.0	10.0	10.0	15.0	10.0	49.5	2.3	0.7	16.5 g	0.8	46.04%
Pacific Littleneck Clams	15.0	10.0	10.0	10.0	5.0	19.8	0.9	0.3	6.6 g	0.3	43.43%
Softshell Clams	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Cockles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Scallops	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00%
Mussels	15.0	15.0	15.0	0.0	5.0	9.9	0.5	0.1	6.6	0.3	37.69%
Crabs	95.0	25.0	25.0	90.0	45.0	498.5	22.7	7.2			29.40%
Dungeness Crab	10.0	10.0	10.0	0.0	0.0	30.8	1.4	0.4	44.0	2.0	43.43%
King Crab	80.0	20.0	20.0	75.0	30.0	159.4	7.2	2.3	69.3	3.2	34.49%

Table 13. Estimated Harvest and Use of Fish, Game, and Plant Resources, False Pass, 1987/88

Resource Name	Percentage of Households					Pounds Harvested			Amount Harvested[1]			Conf Limit
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total		Mean HH	Harvest
Tanner Crab	65.0	15.0	15.0	60.0	35.0	304.5	13.8	4.4				41.46%
Tanner Crab, Opilio	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.00%
Tanner Crab, Unknown	65.0	15.0	15.0	60.0	35.0	304.5	13.8	4.4	190.3		8.7	41.46%
Hair Crab	5.0	5.0	5.0	0.0	0.0	3.9	0.2	0.1	5.5		0.3	63.11%
Chitons	85.0	75.0	75.0	45.0	65.0	495.0	22.5	7.1	123.8	g	5.6	17.54%
Octopus	90.0	50.0	50.0	85.0	35.0	444.4	20.2	6.4	111.1		5.1	27.74%
Sea Urchin	40.0	35.0	30.0	20.0	15.0	8.8	0.4	0.1	17.6	g	0.8	24.68%
Shrimp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.00%
Snails	5.0	5.0	5.0	0.0	5.0	8.3	0.4	0.1	5.5	g	0.3	63.11%
Limpets	5.0	5.0	5.0	0.0	0.0	16.5	0.8	0.2	5.5	g	0.3	63.11%
Plants and Berries	100.0	100.0	100.0	50.0	45.0	883.9	40.2	12.8	221.0	g	10.0	11.90%
Berries	100.0	90.0	90.0	35.0	40.0	635.8	28.9	9.2	159.0	g	7.2	16.04%
Plants/Greens/Mushrooms	90.0	90.0	90.0	25.0	25.0	243.7	11.1	3.5	60.9	g	2.8	14.31%
Seaweed/Kelp (Food)	5.0	5.0	5.0	0.0	0.0	4.4	0.2	0.1	1.1	g	0.1	63.11%
Wood	25.0	25.0	25.0	5.0	10.0	0.0	0.0	0.0	74.8	c	3.4	38.02%

1 In numbers of animals unless otherwise specified; b = five gallon buckets, g = gallons, c = cords.

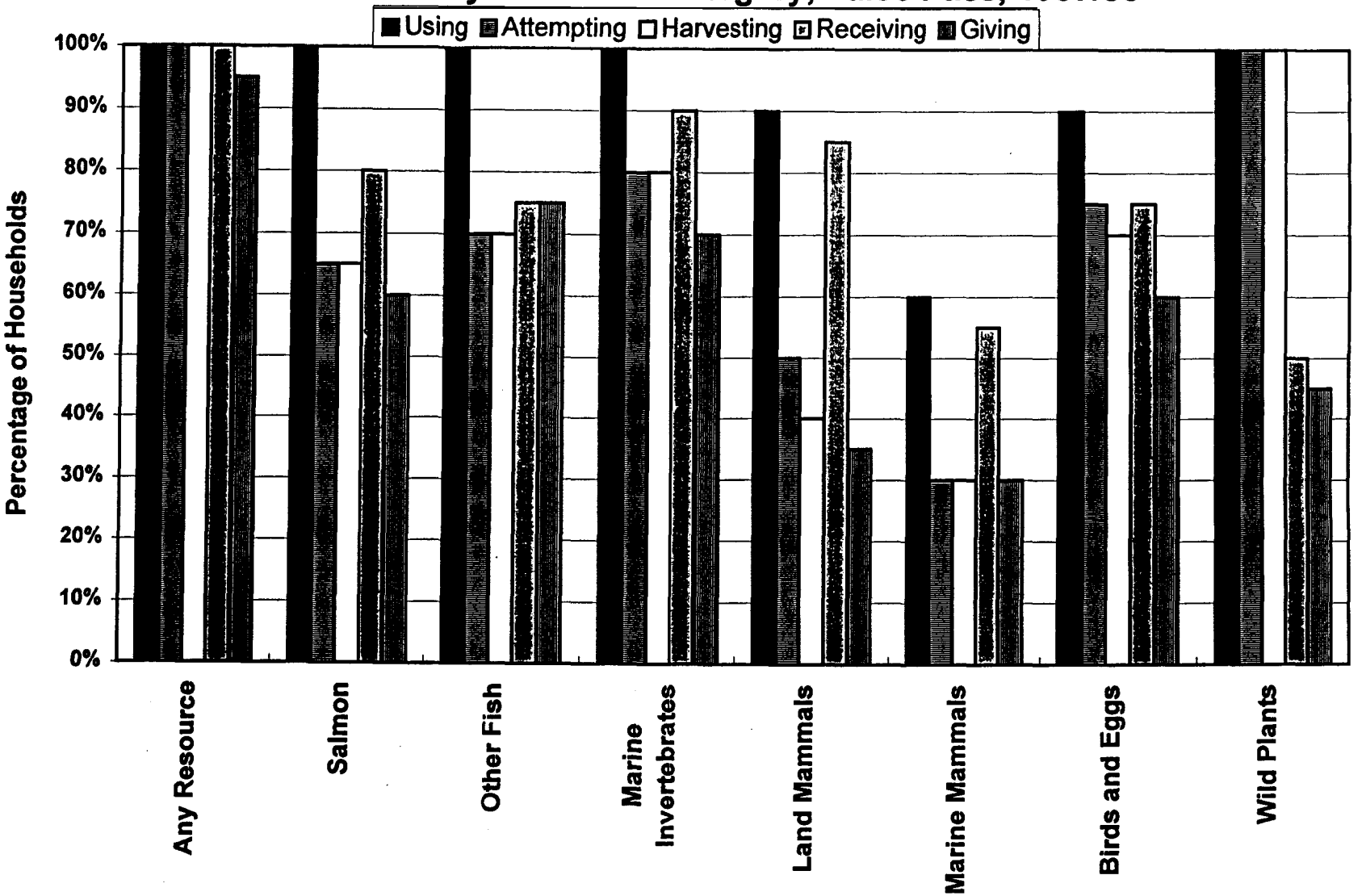
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Table 14. Resource Harvest and Use Characteristics, False Pass,1987/88

Mean Number Of Resources Used Per Household	22.6
Minimum	9.0
Maximum	42.0
95 % Confidence Limit (+I-)	5.3
Median	23.0
Mean Number Of Resources Attempted To Harvest Per Household	14.6
Minimum	1.0
Maximum	36.0
95 % Confidence Limit (+/-)	10.1
Median	14.0
Mean Number Of Resources Harvested Per Household	14.0
Minimum	1.0
Maximum	35.0
95 % Confidence Limit (+I-)	10.4
Median	14.0
Mean Number Of Resources Received Per Household	13.1
Minimum	1.0
Maximum	24.0
95 % Confidence Limit (+/-)	7.5
Median	13.0
Mean Number Of Resources Given Away Per Household	9.7
Minimum	0.0
Maximum	25.0
95 % Confidence Limit (+/-)	11.6
Median	8.0
Mean Household Harvest, Pounds	1,299.4
Minimum	1.0
Maximum	5,771.9
Total Pounds Harvested	28,586-I
Community Per Capita Harvest, Pounds	412.5
‘ercent Using Any Resource	100.0%
‘ercent Attempting To Harvest Any Resource	100.0%
Percent Harvesting Any Resource	100.0%
‘ercent Receiving Any Resource	100.0%
‘ercent Giving Away Any Resource	95.0%

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Figure 4. Household Participation in Resource Use and Harvest Activities by Resource Category, False Pass, 1987/88



As shown in Table 15, 85.7 percent of the population of False Pass engaged in wild resource harvesting activities in 1987188. The most (73.0 percent) harvested wild plants, while 60.3 percent fished (including gathering marine invertebrates) and 23.8 percent hunted mammals or birds or trapped.

SEASONAL ROUND OF RESOURCE HARVESTS

Figure 5 illustrates the seasonal round of resource harvest activities in False Pass in the 1980s and early 1990s. This is based on key respondent interviews in False Pass and the neighboring communities of King Cove and Sand Point, as well as written sources (Langdon 1982, Wright et al. 1985). As noted by Braund et al. (1986a:7-42) for King Cove, with the exception of a few species such as salmon, many resources are generally available year-round in the Lower Alaska Peninsula/Unimak Island area. Therefore, the seasonal round of subsistence harvests is more dependent on the availability of time and on regulatory restrictions. Many species of bottomfish (cod, halibut), marine invertebrates (clams, crab, chitons, octopus), birds (some waterfowl, ptarmigan), and mammals (harbor seals, caribou) live in the area year-round and most are generally taken in small quantities when needed. During the study period, concentrated subsistence activities in False Pass took place in the spring (May) and throughout the summer when salmon were available. Late summer and early fall were also very important for caribou, ptarmigan, and waterfowl hunting. As noted below, harbor seal hunting took place year-round, but most seals were taken in the fall (September and October) and in winter (January, February, and March).

HARVEST QUANTITIES AND COMPOSITION

As reported in Table 13 and Table 14, the mean household harvest of wild foods in False Pass in the 12-month study period from November 1987 to October 1988 was 1,299.4 pounds usable weight. The per capita harvest was 412.5 pounds. This is a substantial harvest. In the western United States in the late 1970s, households purchased about 222 pounds per person of meat, fish, and poultry (US Department of Agriculture 1983). Subsistence harvests at False Pass in 1987188 exceeded this level by about 86 percent.

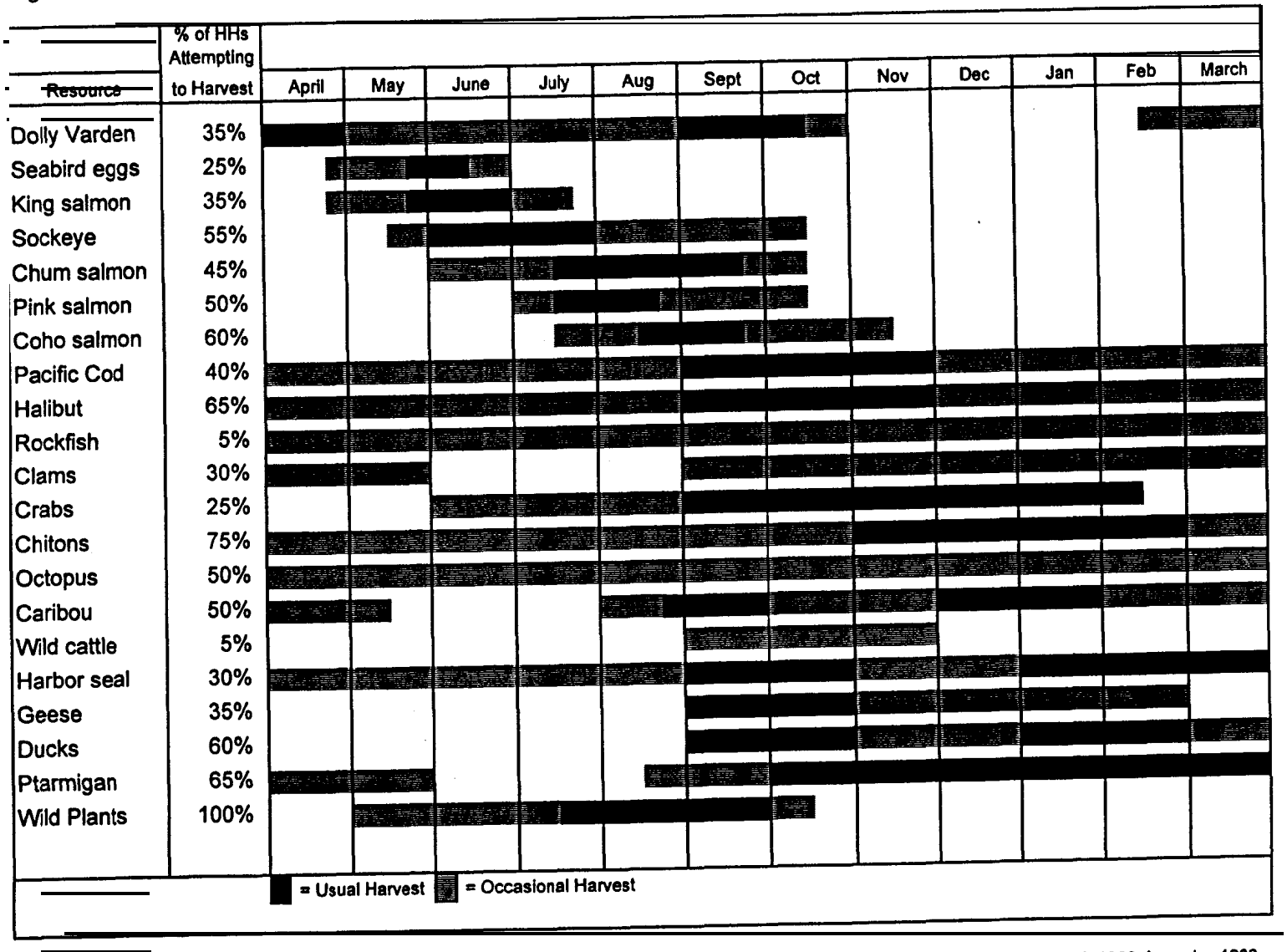
As shown in Figure 6, salmon made the largest contribution to this harvest with 46.8 percent of the total take (608.4 pounds per household, 193.1 pounds per capita), followed by land mammals with 19.2 percent (250.0 pounds per household, 79.4 pounds per capita), fish other than salmon with 14.7 percent (190.4 pounds per household, 60.4 pounds per capita), marine mammals with 6.1 percent (79.7 pounds per household, 25.3 pounds per capita), marine invertebrates with 5.6 percent (73.2 pounds per household, 23.2 pounds per capita), birds and eggs with 4.4 percent (57.5 pounds per household, 18.3 pounds per capita), and wild plants with 3.1 percent (40.2 pounds per household, 12.8 pounds per capita).

Table 15. Participation in the Harvest of Wild Resources by False Pass Residents, 1987/88

Istimated Total Number of People		69
iunted for mammals or birds, or trapped	Estimated number of people	I7
	Percentage of population	23.8%
	Missing	0
Fished for fish or gathered marine invertebrates	Estimated number of people	42
	Percentage of population	60.3%
	Missing	0
Gathered wild plants	Estimated number of people	51
	Percentage of population	73.0%
	Missing	0
Engaged in any resource harvest activity	Estimated number of people	59
	Percentage of population	85.7%

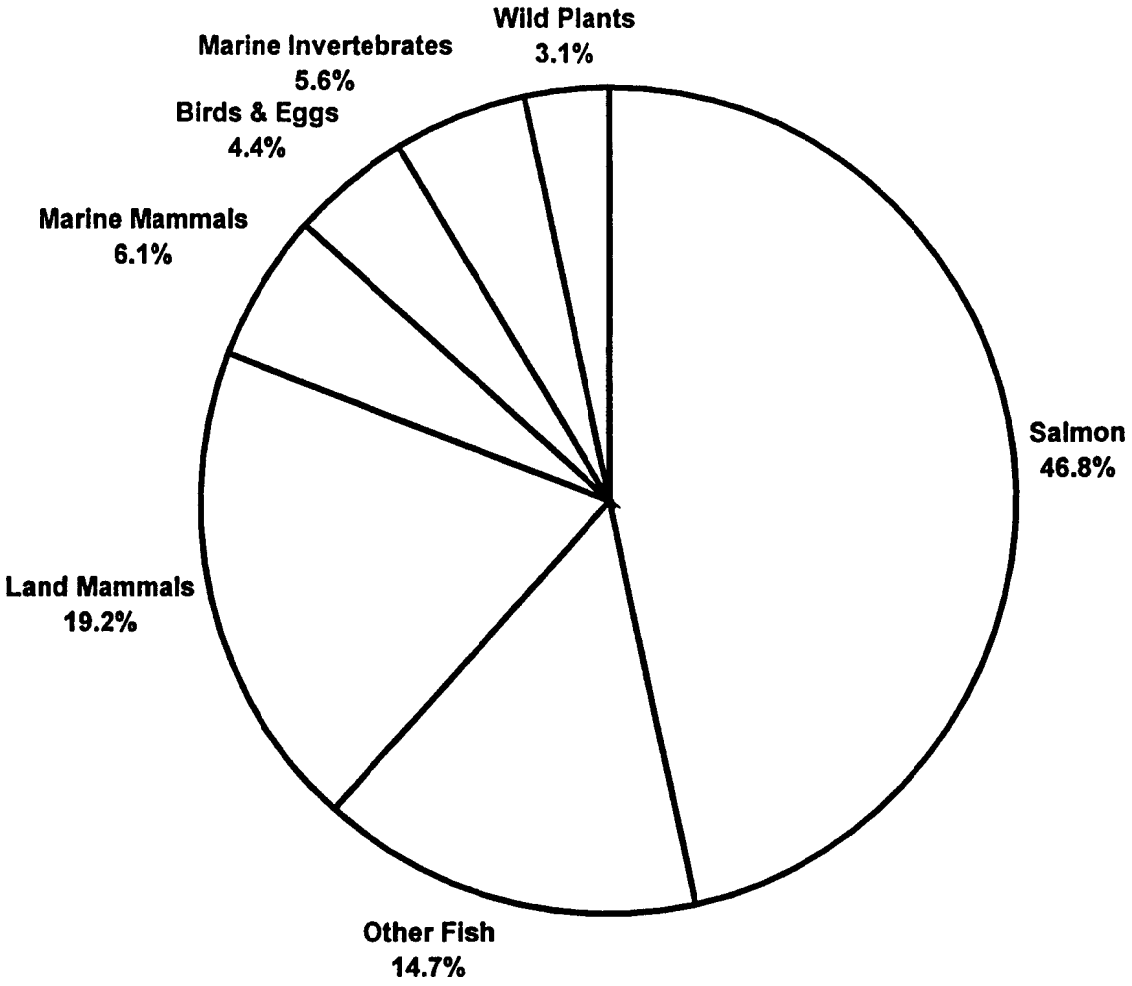
Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey 1988

Figure 5. Annual Round of Harvest Activities by Residents of False Pass, 1980s and Early 1990s



SOURCES: ADF&G, Division of Subsistence, Household Interviews 1988; Braund et al. 1986; Wright et al. 1985; Shaul and McCullough 1992; Langdon 1982

Figure 6. Composition of Resource Harvest, False Pass, 1987/88



As estimated in pounds usable weight, caribou made the largest contribution of any single resource to the 1987/88 harvest in False Pass with 232.5 pounds per household (73.8 pounds per capita), followed by who salmon with 196.6 pounds per household (62.4 pounds per capita), and sockeye salmon with 156.4 pounds per household (49.7 pounds per capita). This finding is consistent with that of Langdon's conclusion, based on interviews with six False Pass households in 1981, that caribou, sockeye salmon, and who salmon were "the major staples" in the community (Langdon 1982:222-3). Other resources in the top ten in 1987/88 at False Pass were chum salmon (117.3 pounds per household, 37.2 pounds per capita), pink salmon (84.0 pounds per household, 26.7 pounds per capita), harbor seal (67.2 pounds per household, 21.3 pounds per capita), halibut (120.0 pounds per household; 38.1 pounds per capita), king salmon (52.9 pounds per household, 16.8 pounds per capita), gray cod (42.5 pounds per household, 13.5 pounds per capita), and Dolly Varden (41.9 pounds per household, 13.3 pounds per capita) (Table 13).

RESOURCE DISTRIBUTION AND EXCHANGE

Sharing of resource harvests was extremely wmmon during the study year in False Pass. As noted above, every household received gifts of wild foods and all but one (95.0 percent) gave away a portion of their harvests (or resources they had received) to others (Table 14). On average, households received 13.1 kinds of wild resources from harvesters in other households and gave away 9.7 kinds. Most households received gifts of marine invertebrates (90.0 percent of the households), land mammals (85.0 percent), salmon (80.0 percent), birds (75.0 percent), other fish (75.0 percent), marine mammals (55.0 percent), and wild plants (50.0 percent) (Fig. 4). The most commonly received resources were caribou and octopus (85.0 percent of the households). Other resources received by at least half the households included who salmon (80.0 percent), king crab (70.0 percent), ptarmigan (65.0 percent), halibut (60.0 percent), tanner crab (60.0 percent), gull eggs (50.0 percent), Dolly Varden (50.0 percent), king salmon (50.0 percent), and sockeye salmon (50.0 percent) (Table 13).

Also as shown in Figure 4, more False Pass households gave away fish other than salmon (75.0 percent) than any other resource category. Next was marine invertebrates with 70.0 percent of the households, followed by salmon (60.0 percent), birds and eggs (60.0 percent), wild plants (50.0 percent), land mammals (35.0 percent), and marine mammals (30.0 percent). It should be noted that all successful harvesters of big game and marine mammals shared their catches with other households. Chitons were the resource given away by the most households (65.0 percent). Other resources given away by a third or more of the households included halibut (60.0 percent), ptarmigan (55.0 percent), sockeye salmon (45.0 percent), Dolly Varden (40.0 percent), berries (40.0 percent), caribou (35.0 percent), king salmon (35.0 percent), and who salmon (35.0 percent).

HOUSEHOLD SPECIALIZATION IN SUBSISTENCE HARVESTING

As noted by Wolfe (1987), most households in contemporary rural Alaska communities use and harvest subsistence resources, but a relatively small portion of these households harvest most of the wild foods and distribute them to others in their communities. This specialization in subsistence harvesting was evident in False Pass in the 1987/88 study year. As shown in Figure 7, 50.0 percent of the False Pass households harvested less than 500 pounds (usable weight) of wild resources in 1987/88, while 30.0 percent of the households harvested more than 1,500 pounds. Wolfe(1987:16) further suggested that a "30-70 rule" applies in rural Alaska communities, with about 30 percent of the households providing about 70 percent of the wild foods. 'Again, the findings for False Pass support this observation (Fig. 8). The 30 percent of the False Pass households with the highest harvests accounted for 78.0 percent of the community's total harvest of wild foods for home use in 1987/88. This pattern appeared at the resource category level as well (with the exception of wild plants), and specialization was most pronounced for marine mammals, salmon, and land mammals. All but one of these highly productive households were involved in commercial fishing; the exception was an elder who was a retired commercial fisherman. All owned skiffs and most owned commercial fishing boats, and all but one owned a smokehouse (again, the exception was an elder household which used a neighbor's smokehouse). These households were also larger (average size of 4.0 people) than those producing less subsistence foods (average size 2.8 people).

COMMERCIAL FISHERIES AS A SOURCE OF RESOURCES FOR HOME USE

Removal of resources from commercial catches was an important source of subsistence foods for False Pass households during the 1987/88 study year. This includes resources that were the targets of commercial fisheries such as salmon, halibut, and crab, as well as species taken incidentally during commercial activities, such as octopus. As reported in Table 16, False Pass households removed 13 different kinds of resources from commercial harvests, which contributed 8,810.1 pounds of food to the community. This represents 45.9 percent of the harvest (as estimated in pounds) of these 13 resources, and 30.8 percent of the total harvest of all resources by False Pass households in 1987/88. Removal from commercial catches accounted for almost 60 percent of the salmon taken for home use (see below), as well as 92.1 percent of the king crab, 29.7 percent of the octopus, and 17.9 percent of the halibut. The 65.0 percent of the False Pass households which were involved in commercial fisheries harvested 92.3 percent of the total wild resource harvest for home use in the community in the study year.

Figure 7. Household Harvests of Wild Resources, False Pass, 1987/88

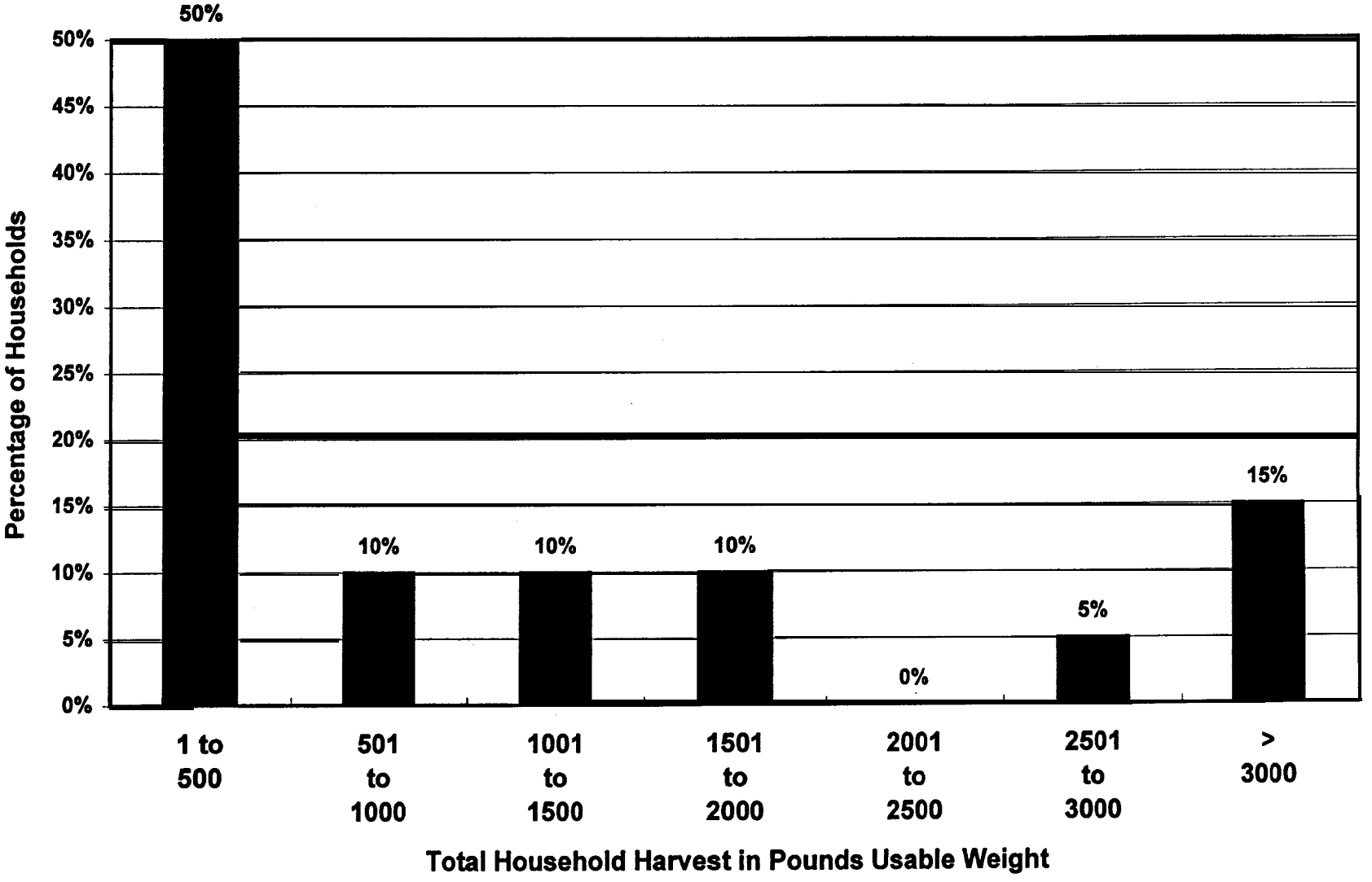
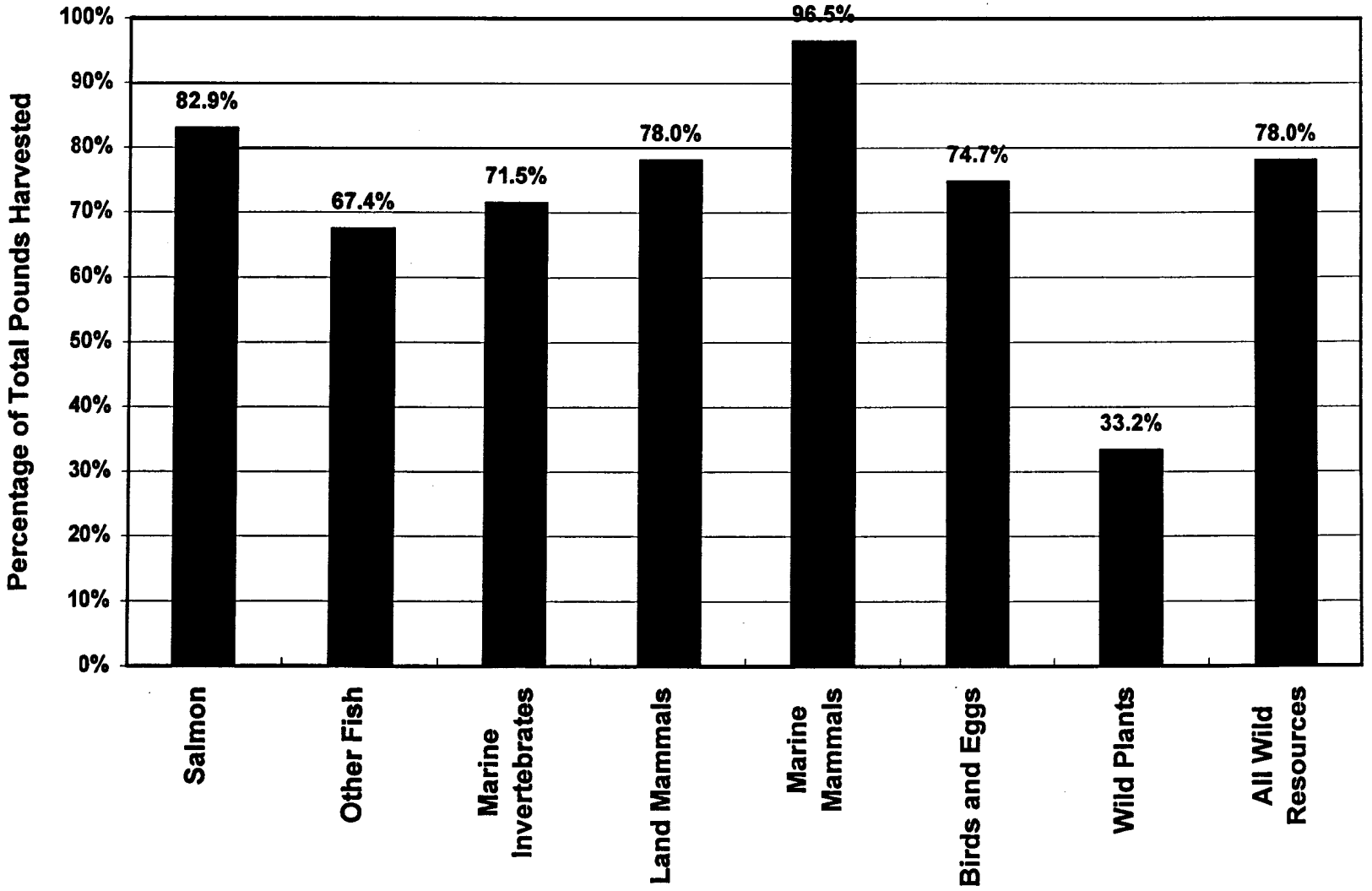


Figure 8. Percentage of Subsistence Harvests Taken by the Most Productive Households, False Pass, 1987/88*



* Percentage of total community harvest by the 30 percent of households with the largest harvests (6 out of 20 households interviewed).

Table 16. Resources Removed From Commercial Harvests for Home Use, False Pass, 1987188

Resource	Removed From Catch		Percentage of	
	Amount[1]	Pounds	Category Harvest (lbs)[2]	Total Harvest (lbs)
All Resources		8810.1	45.9%	30.8%
Fish		8508.4	48.4%	29.8%
Salmon	1,797.4	8,004.5	59.8%	26.8%
Chum Salmon	348.7	1,635.4	63.4%	5.5%
Coho Salmon	413.6	2,460.9	56.9%	8.3%
Chinook Salmon	60.5	711.5	61.1%	2.4%
Pink Salmon	445.5	1,122.7	60.7%	3.8%
Sockeye Salmon	529.1	2,074-l	60.3%	7.0%
Non-Salmon Fish		503.9	12.0%	1.8%
Cod		161.7	15.5%	0.5%
Pacific Cod	46.2	161.7	17.3%	0.5%
Sablefish	5.5	19.3	6.3%	0.1%
Halibut	91.5	252.3	17.9%	0.9%
Herring	2.2 'b	66.0	100.0%	0.2%
Trout and Char	3.3	4.6	0.5%	0.0%
Trout	3.3	4.6	18.8%	0.0%
Steelhead	3.3	4.6	100.0%	0.0%
Marine Invertebrates		301.6	18.7%	1.0%
Crabs		169.6	34.0%	0.6%
King Crab	63.8	146.7	92.1%	0.5%
Tanner Crab		22.9	7.5%	0.1%
Tanner Crab, Unknown	14.3	22.9	7.5%	0.1%
Octopus	33.0	132.0	29.7%	0.4%

[1] In numbers of animals unless otherwise specified; b = five gallon buckets.

[2] The "all resources" in this column includes any resource for which any portion of the harvest for home use was removed from commercial catches.

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

EQUIPMENT OWNERSHIP

Table 17 reports the percentage of False Pass households that owned equipment or facilities that were used for subsistence activities in the 1987/88 study year. Most households owned all-terrain vehicles (70.0 percent) and skiffs (60.0 percent), while 45.0 percent owned highway vehicles, 30.0 percent had commercial fishing boats, and 10.0 percent had snowmachines. None of the sampled households owned airplanes. Half the households owned subsistence nets and an additional 10 percent had ready access to nets that they borrowed from or used with another household. Only 5.0 percent of the households owned a trapping camp, but 15.0 percent had fish camps and 20.0 percent other camps that were used for subsistence activities. For processing and storing subsistence resources, almost all the households (90.0 percent) owned freezers, while 55.0 percent had drying racks and 45.0 percent owned smokehouses. In addition, 40.0 percent of the households had steam baths.

HARVEST AREAS

Figure 9, Figure 10, and Figure 11 depict areas used by False Pass residents to harvest subsistence resources in the 1960s, 1970s, and 1980s. The maps are based on interviews with four key respondents in 1983. Since not all resource harvesters in the community were interviewed, and because resource harvest areas change over time, these maps may not be a complete portrayal of areas important to False Pass subsistence activities. The maps show that False Pass residents depend exclusively on Unimak Island, the lower Alaska Peninsula south and west of Pavlof Bay, and adjacent islands for subsistence hunting, fishing, and gathering. The most extensive areas are those used for caribou hunting and for trapping.

SALMON

As noted above, salmon made up 46.8 percent by weight of the total resource harvest by False Pass households in 1987/88, more than any other resource category. The mean household harvest was 608.4 pounds of salmon, 193.1 pounds per capita. Every False Pass household used salmon during the study year, 70.0 percent fished for salmon, and 65.0 percent were successful harvesters of at least one kind of salmon. In addition, 60.0 percent of the households gave away part of their salmon catch and 80.0 percent received gifts of salmon from other households.

Subsistence Fishing Regulations

Subsistence fishing for salmon by False Pass residents takes place in the Alaska Peninsula Management Area. In 1988, subsistence regulations allowed fishing for salmon at any time except 24

Table 17. Equipment Owned by False Pass Households, 1987188

ype of Equipment	Percentage 0f Households
ransportation:	
All Terrain Vehicle	70.0%
Airplane	0.0%
Commercial Boat	30.0%
Highway Vehicle	45.0%
Skiff	60.0%
Snowmachine	10.0%
:amps:	
Fish Camp	15.0%
Trapping Camp	5.0%
Other Type of Camp	20.0%
larvesting, Processing, and Storing	
Drying Rack	55.0%
Freezer	90.0%
Smokehouse	45.0%
Subsistence Nets Owned	50.0%
Subsistence Nets Shared	10.0%
)ther:	
Steam Bath	40.0%

Source: Alaska Department of Fish and Game, Division of Subsistence Household Survey 1988

Figure 9.

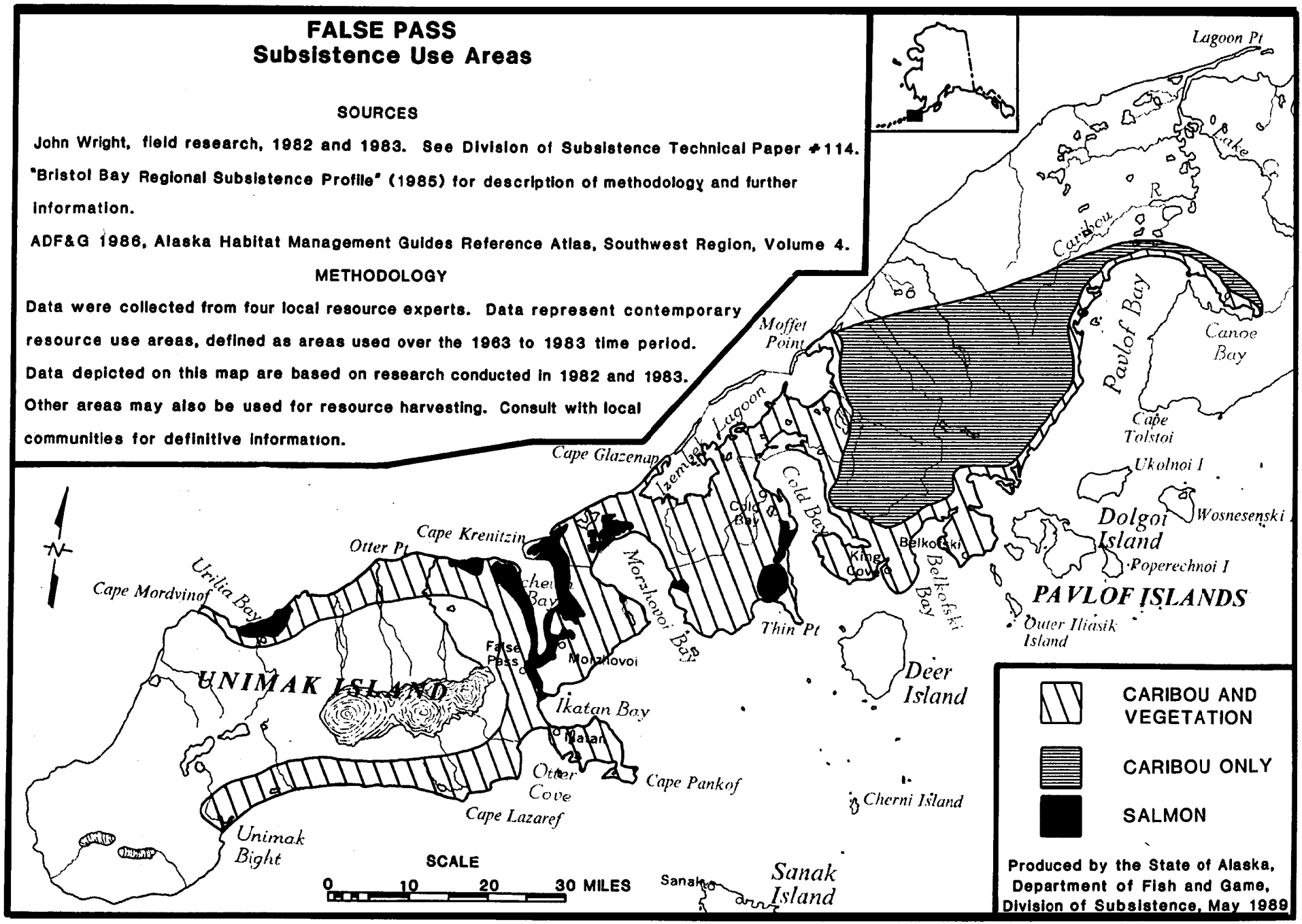
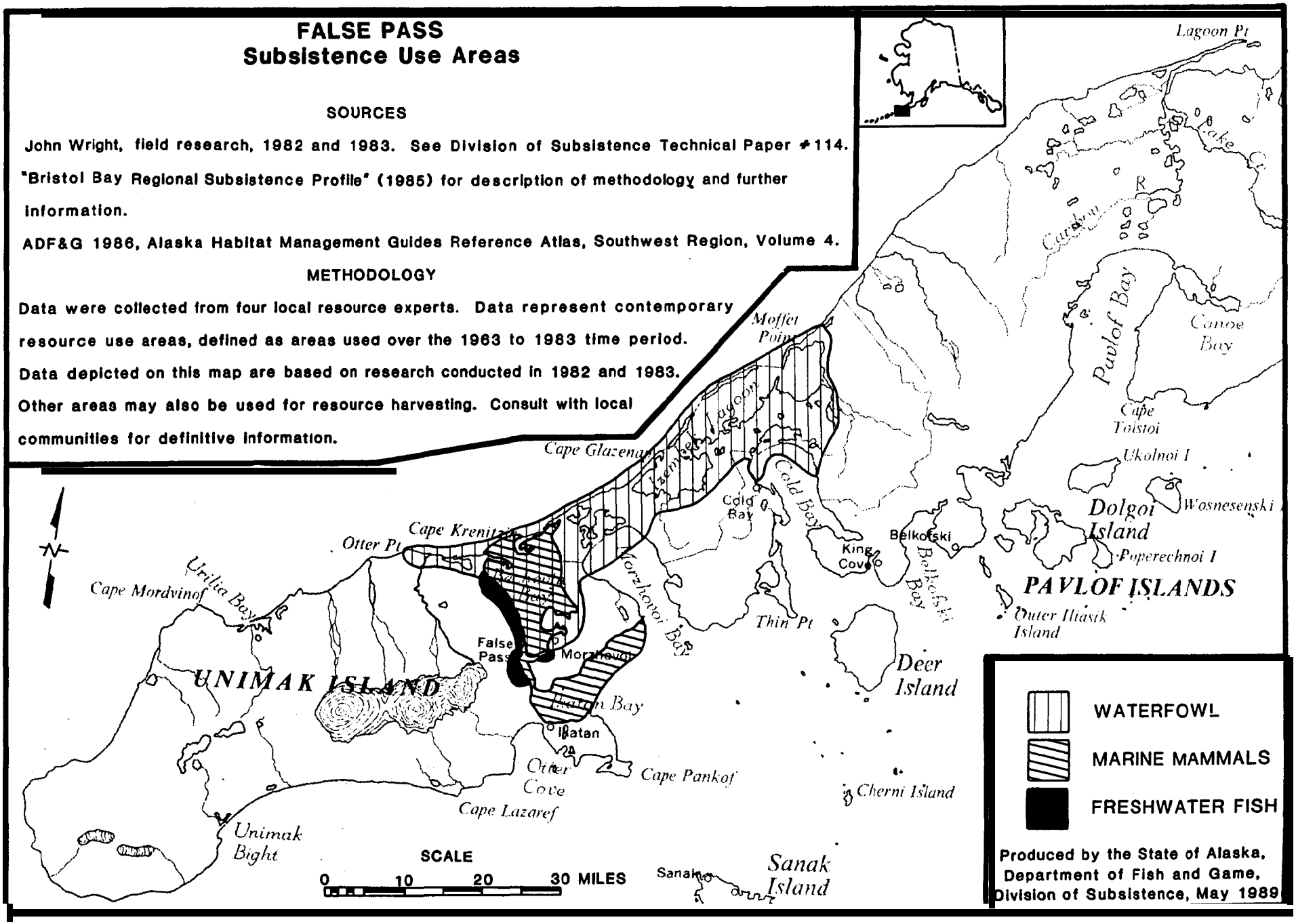

FALSE PASS
Subsistence Use Areas
SOURCES
John Wright, field research, 1982 and 1983. See Division of Subsistence Technical Paper #114.
"Bristol Bay Regional Subsistence Profile" (1985) for description of methodology and further information.
ADF&G 1986, Alaska Habitat Management Guides Reference Atlas, Southwest Region, Volume 4.
METHODOLOGY
Data were collected from four local resource experts. Data represent contemporary resource use areas, defined as areas used over the 1963 to 1983 time period. Data depicted on this map are based on research conducted in 1982 and 1983. Other areas may also be used for resource harvesting. Consult with local communities for definitive information.
Lagoon Pt
Lake
Caribou R
Moffet Point
Pavlof Bay
Canoe Bay
Cape Tolstoi
Ukolnoi I
Dolgoi Island
Wosnesenski I
Poperechnoi I
PAVLOF ISLANDS
Outer Iliasik Island
Cape Glazenap
Izembek Lagoon
Cold Bay
Belkofski
King Cove
Belkofski Bay
Thin Pt
Deer Island
Cape Krenitzin
Otter Pt
Morzhovoi Bay
Cape Mordvinof
Urilia Bay
False Pass
Morzhovoi
UNIMAK ISLAND
Ikatan Bay
Nalan
Otter Cove
Cape Pankof
Cape Lazaref
Unimak Bight
Cherni Island
Sanak
Sanak Island
SCALE
0 10 20 30 MILES
CARIBOU AND VEGETATION
CARIBOU ONLY
SALMON
Produced by the State of Alaska, Department of Fish and Game, Division of Subsistence, May 1989

Figure 10.


FALSE PASS
Subsistence Use Areas
SOURCES
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Cape Glazenap
Cape Tolstoi
Ukolnoi I
Cold Bay
Dolgoi Island
Wosnesenski I
Otter Pt
Cape Krenitzin
Belkofski
King Cove
Poperechnoi I
PAVLOF ISLANDS
Urilia Bay
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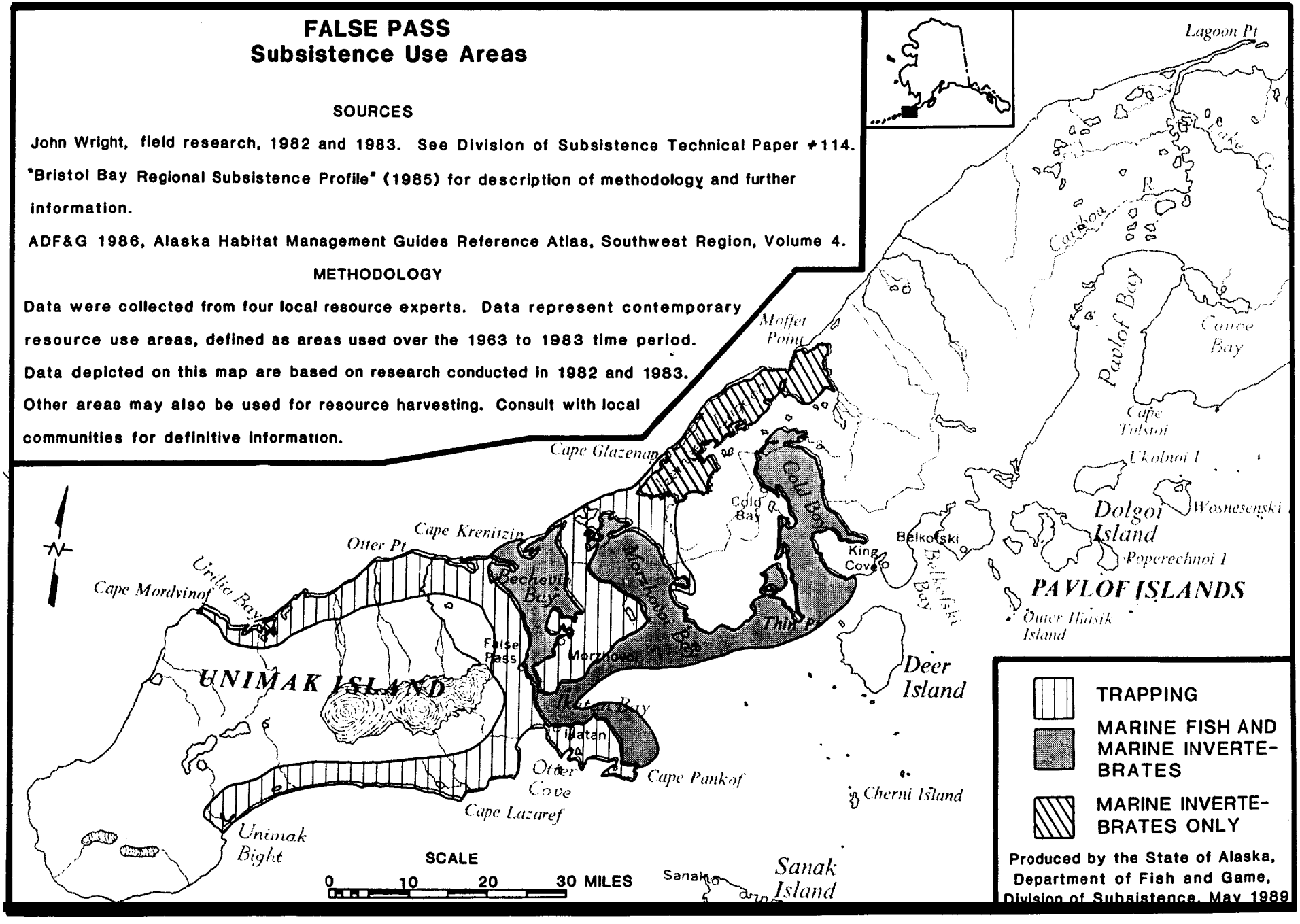
Thin Pt
Outer Iliask Island
False Pass
Morzhovoi
UNIMAK ISLAND
Deer Island
Isanotski Strait
Isatan
Otter Cove
Cape Pankof
Cape Lazaref
Cherni Island
Unimak Bight
SCALE
0 10 20 30 MILES
Sanak
Sanak Island
WATERFOWL
MARINE MAMMALS
FRESHWATER FISH
Produced by the State of Alaska, Department of Fish and Game, Division of Subsistence, May 1989

Figure 11.


FALSE PASS
Subsistence Use Areas
SOURCES
John Wright, field research, 1982 and 1983. See Division of Subsistence Technical Paper #114. "Bristol Bay Regional Subsistence Profile" (1985) for description of methodology and further information.
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King Cove
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Ikatan
Otter Cove
Cape Pankof
Cape Lazaref
Unimak Bight
Cherni Island
SCALE
0 10 20 30 MILES
Sanak
Sanak Island
TRAPPING
MARINE FISH AND MARINE INVERTEBRATES
MARINE INVERTEBRATES ONLY
Produced by the State of Alaska, Department of Fish and Game, Division of Subsistence, May 1989

hours before and within 12 hours following each weekly commercial salmon fishing opening within a 50 mile radius of the area open to commercial fishing. Salmon could be taken by set or drift gill net or seine. A subsistence fishing permit, available from ADF&G free of charge, was required. Unless otherwise specified on the permit, there was an annual harvest limit per permit of 250 salmon (ADF&G 1988).

Salmon Harvests by Species and Gear Type

As estimated in numbers of fish, sockeye salmon were the most numerous species in the estimated False Pass harvest in 1987/88 with 878 fish, 29.3 percent of the total number of salmon (Table 18, Table 19, Fig. 12). Pink salmon were the second most numerous species in the salmon harvest, with 734 fish (24.5 percent of the total number of salmon), followed by who salmon (727 fish, 24.3 percent), chum salmon (550 fish, 18.3 percent), chinook salmon (99 fish, 3.3 percent), and spawning salmon (10 fish, 0.3 percent). In terms of pounds usable weight, who salmon made the largest contribution with 4,326 pounds (196.6 pounds per household) for 32.3 percent of the total salmon harvest by weight (Table18, Table 19, Fig. 13). Sockeyes were second with 3,441 pounds (156.4 pounds per household), 25.7 percent of the total, followed by chum salmon (2,580 pounds, 117.3 pounds per household, 19.3 percent of the total), pink salmon (1,849 total pounds, 84.0 pounds per household, 13.8 percent of the total), chinook salmon (1,164 pounds; 52.9 pounds per household, 8.7 percent of the total), and spawning salmon (25 pounds, 1.1 pounds per household, 0.2 percent of the total). Every False Pass household used who salmon in 1987/88, 95.0 percent used sockeyes, 75.0 percent used chinook, 70.0 percent used chums, 65.0 percent used pinks, and 20.0 percent used spawning salmon (Table 13). The most households harvested whos (60.0 percent), followed by sockeyes (55.0 percent), pinks (50.0 percent), chums (45.0 percent), kings (35.0 percent), and spawning salmon (10.0 percent) (Table 13, Table 20).

As reported in Table 19 and shown in Figure 14 and Figure 15, in the 1987188 study year, salmon removed from households' commercial catches provided 59.8 percent of the salmon taken by False Pass for home use as measured in pounds usable weight, and 60.0 percent of the total number of salmon. Removal from commercial catches accounted for 61.1 percent of the chinook salmon, 60.3 percent of the sockeyes, 63.4 percent of the chums, 60.7 percent of the pinks, and 56.9 percent of the who salmon. In total, in 1988 False Pass households removed about 8,005 pounds of salmon from their commercial catches, 1,797 fish (Table 18). This included 61 chinook salmon, 529 sockeye salmon, 349 chum salmon, 446 pink salmon, and 414 who salmon. Half of the False Pass households (50.0 percent) removed salmon from commercial catches for home use (Table 20).

In the 1987/88 study year, subsistence nets provided the second largest amount of salmon for False Pass residents, after removal from commercial catches. In total, 5,310 pounds of salmon (usable weight) were taken in this manner, 1,178 fish (Table 18). This was 39.7 percent of the total salmon catch as measured in pounds and 39.3 percent as estimated in numbers of fish (Table 19, Fig. 14, Fig. 15). Subsistence nets accounted for 38.9 percent of the catch of chinook salmon (39 fish), 39.7 percent of the

Table 18. Estimated Salmon Harvests by Gear Type, False Pass, 1987/88

	Harvest Units	Subsistence Nets		Removed from Commercial Catch		Rod and Reel		Any Method	
		Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
All Salmon	numbers	1,178.1	53.6	1,797.4	81.7	22.0	1.0	2.9975	136.3
	pounds	5,309.8	241.4	8,004.5	363.8	70.5	3.2	13,384.8	608.4
Chum Salmon	numbers	201.3	9.2	348.7	15.9	0.0	0.0	550.0	25.0
	pounds	944.1	42.9	1,635.4	74.3	0.0	0.0	2,579.5	117.3
Coho Salmon	numbers	309.1	14.1	413.6	18.8	4.4	0.2	727.1	33.1
	pounds	1,839.1	83.6	2,460.9	111.9	26.2	1.2	4,326.2	196.6
Chinook Salmon	numbers	38.5	1.8	60.5	2.8	0.0	0.0	99.0	4.5
	pounds	452.8	20.6	711.5	32.3	0.0	0.0	1,164.2	52.9
Pink Salmon	numbers	275.0	12.5	445.5	20.3	13.2	0.6	733.7	33.4
	pounds	693.0	31.5	1,122.7	51.0	33.3	1.5	1,848.9	84.0
Sockeye Salmon	numbers	348.7	15.9	529.1	24.1	0.0	0.0	877.8	39.9
	pounds	1.366.9	62.1	2,074.1	94.3	0.0	0.0	3,441.o	156.4
Spawnouts, Salmon	numbers	5.5	0.3	0.0	0.0	4.4	0.2	9.9	0.5
	Pounds	13.9	0.6	0.0	0.01	11.1	0.51	24.9	1.1

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Table 19. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest, False Pass, 1987188

Resource	Percent Base	Subsistence Nets		Removed from Commercial Catch		Rod and Reel		Any Method	
		No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.
All Salmon	total	39.3	39.7	60.0	59.8	0.7	0.5		
Chum Salmon	gear type	17.1	17.8	19.4	20.4	0.0	0.0		
	resource	36.6	36.6	63.4	63.4	0.0	0.0		
	total	6.7	7.1	11.6	12.2	0.0	0.0	18.3	19.
Coho Salmon	gear type	26.2	34.6	23.0	30.7	20.0	37.1		
	resource	42.5	42.5	56.9	56.9	0.6	0.6		
	total	10.3	13.7	13.8	18.4	0.1	0.2	24.3	32.
Chinook Salmon	gear type	3.3	8.5	3.4	8.9	0.0	0.0		
	resource	38.9	38.9	61.1	61.1	0.0	0.0		
	total	1.3	3.4	2.0	5.3	0.0	0.0	3.3	8.
Pink Salmon	gear type	23.3	13.1	24.8	14.0	60.0	47.2		
	resource	37.5	37.5	60.7	60.7	1.8	1.8		
	total	9.2	5.2	14.9	8.4	0.4	0.2	24.5	13.
Sockeye Salmon	gear type	29.6	25.7	29.4	25.9	0.0	0.0		
	resource	39.7	39.7	60.3	60.3	0.0	0.0		
	total	11.6	10.2	17.7	15.5	0.0	0.0	29.3	25
Spawnouts. Salmon	gear type	0.5	0.3	0.0	0.0	20.0	15.7		
	resource	55.6	55.6	0.0	0.0	44.4	44.4		
	total	0.2	0.1	0.0	0.0	0.1	0.1	0.3	0

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Figure 12. Composition of Salmon Harvest for Home Use, False Pass 1987/88 (Numbers of Salmon)

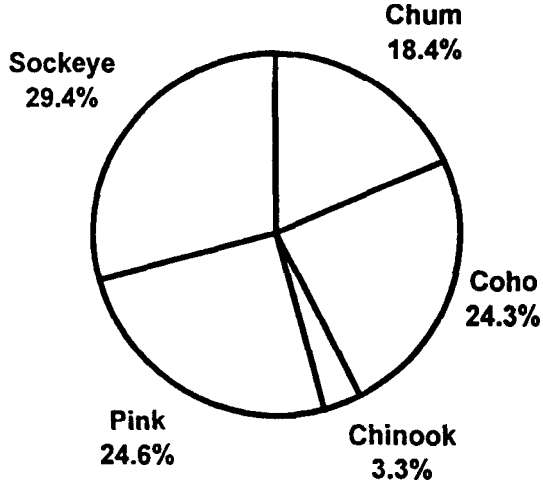


Figure 13. Composition of Salmon Harvest for Home Use, False Pass 1987/88 (Pounds of Salmon)

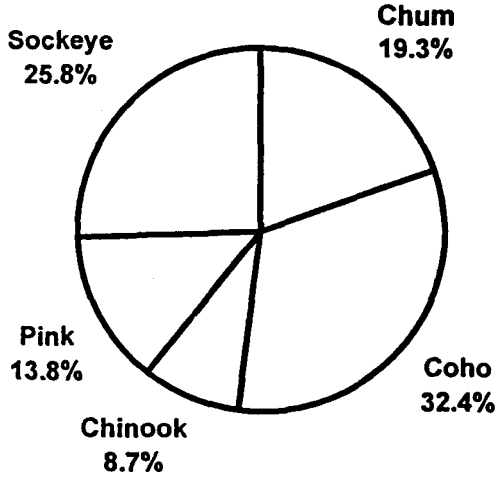


Table 20. Percentage of Households Harvesting Salmon By Gear Type and Species, False Pass, 1987188

Resource	Subsistence Nets	Removed from Commercial Catch	Rod and Reel	Any Method
Any Salmon	45.0%	50.0%	10.0%	65.0%
Chum Salmon	40.0%	30.0%	0.0%	45.0%
Coho Salmon	40.0%	40.0%	5.0%	60.0%
Chinook Salmon	5.0%	35.0%	0.0%	35.0%
Pink Salmon	25.0%	35.0%	5.0%	50.0%
Sockeye Salmon	35.0%	40.0%	0.0%	55.0%
Spawnouts, Salmon	5.0%	0.0%	5.0%	10.0%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Figure 14. Salmon Harvests for Home Use by Gear Type, False Pass 1987/88 (Numbers of Salmon)

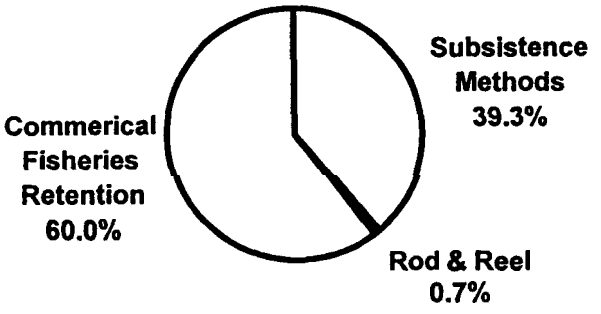
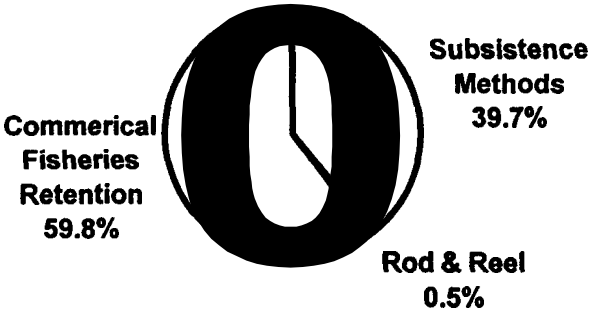


Figure 15. Salmon Harvests for Home Use by Gear Type, False Pass 1987/88 (Pounds of Salmon)



sockeyes (349 fish), 36.6 percent of the chums (201 fish), 37.5 percent of the pinks (275 fish), 42.5 percent of the cohos (309 fish), and 55.6 percent of the spawning salmon (6 fish) (Table 18, Table 19). Forty five percent of False Pass households caught salmon with subsistence gear in the 1987/88 study year (Table 20).

Only 10 percent of False Pass households caught salmon with rod and reel gear in 1987/88 (Table 20). A total of 70.5 pounds of salmon (0.5 percent), or about 22 fish (0.7 percent) was taken with this harvest method, including 13 pink salmon, 4 coho salmon, and 4 spawning salmon (Table 18, Table 19). Respondents reported catching pink salmon with rod and reel gear off of the dock near the village.

As noted above, subsistence salmon fishermen in the Alaska Peninsula Area are required to obtain a permit and report their annual harvests to ADF&G. Table 21 summarizes estimates of harvests of salmon with subsistence methods by False Pass residents based upon permit returns for 1985 through 1994. (Note that these estimates do not include salmon removed from commercial harvests for home use. Also note that some permit holders with False Pass mailing addresses might not be year-round residents of the community.) Estimated subsistence salmon harvests by False Pass permittees averaged 1,460 salmon over this 10 year period, with who (36.4 percent) and sockeye (35.6 percent) accounting for most of the catch. For 1988, permits were issued to 10 False Pass residents, providing an estimated harvest of 1,467 salmon, 146.7 per permit. In comparison, the household survey resulted in an estimate of about 10 False Pass households which harvested salmon with subsistence methods in 1988, for an estimated subsistence harvest of 1,178 salmon, 119.0 per successful subsistence fishing household. Compared to the permit estimates, the survey resulted in a lower harvest estimate for who (834 based on permits, 309 based on surveys) and a higher harvest estimate for pinks (29 based on permits, 275 based on surveys). Compared to the lo-year average subsistence harvest as estimated from permit returns, the household survey for 1988 had a lower percentage of cohos (26.3 percent of harvest survey estimate, 36.4 percent of permit return estimate) and a higher percentage of pinks (23.4 percent of harvest survey estimate, 10.4 percent of permit return estimate) (Fig. 16).

Preservation Methods for Salmon and Other Use Patterns

Typical of many Alaska communities is a seasonal pattern of harvesting salmon and a corresponding set of preservation methods suited to particular tastes, availability of time, and qualities of each fish species. As described by key respondents in 1988, False Pass residents also followed a seasonal pattern of harvest and preservation methods based on the presence of certain species of salmon, their individual physical conditions, and the availability of preservation materials and equipment.

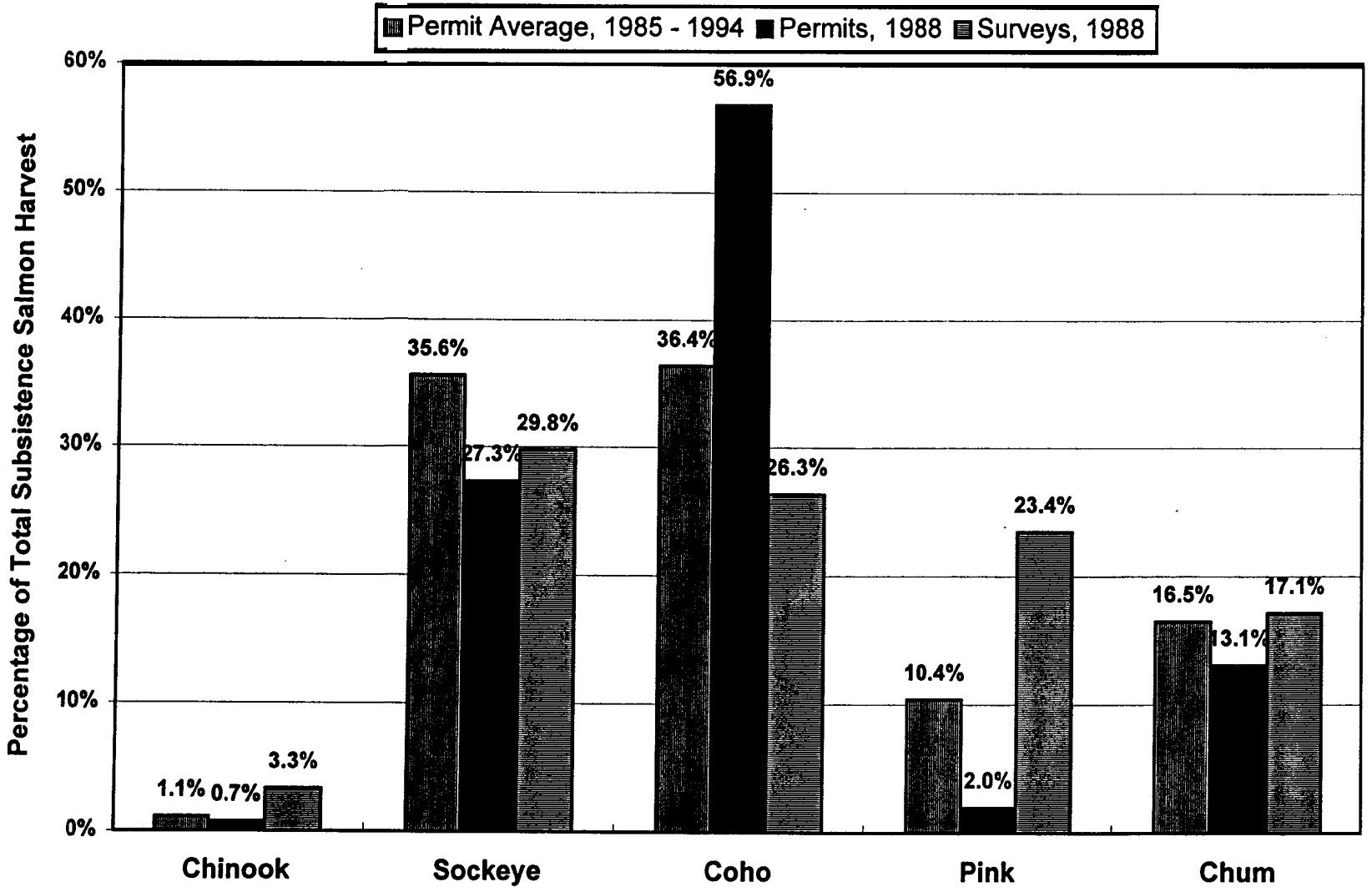
In April and May, king salmon begin to arrive in the vicinity of False Pass. Fishermen take these kings, as well as other salmon species, in setnets. The firm, oily flesh is cut into strips and smoked with alder wood. The first sockeyes to arrive in May and June are also smoked. Because of their firm flesh and excellent qualities for canning and freezing, a few kings are frozen and eaten fresh. Freezing salmon

Table 21. Estimated Subsistence Harvests of Salmon, False Pass, 1985 - 1994

Year	Permits Issued	Estimated Harvests in Numbers of Salmon						Number of Salmon per Permit
		Chinook	Sockeye	Coho	Pink	Chum	Total	
1985	10	30	578	1,858	13	395	2,874	287.4
1986	12	13	158	215	188	299	873	72.8
1987	12	14	103	443	163	389	1,112	92.7
1988	10	11	401	834	29	192	1,467	146.7
1989	7	0	231	55	4	22	312	44.6
1990	9	1	170	193	19	79	462	51.3
1991	17	17	724	500	354	165	1,760	103.5
1992	12	12	1,082	502	242	248	2,086	173.8
1993	14	23	848	397	156	272	1,696	121.1
1994	14	36	906	318	347	354	1,961	140.1
Average	12	16	520	532	152	242	1,460	124.8
Percent of Total		1.1%	35.6%	36.4%	10.4%	16.5%		

Source: McCullough, Shaul, and Murphy 1995:40

Figure 16. Composition of Salmon Harvests with Subsistence Gear, False Pass, by Data Source



allows many households involved in commercial fishing, or other time-consuming work activities during mid summer, to preserve quantities of king and sockeye salmon for later consumption. Freezing has to some extent taken the place of salting, which was the only method other than smoking and drying available for long-term preservation before households acquired freezers. However, salting is still widely practiced in False Pass, as in other communities, where the taste for salted fish and its use in certain recipes remains a tradition. Salted salmon is usually "soaked out" in fresh water and made into dishes such as fish pie, pickled fish, or fried fish. Some households continue to dry sockeye salmon.

As the summer season progresses, and a wider variety of salmon begin to arrive, commercial fishing activities occupy the majority of False Pass residents' time. As noted earlier, 'residents remove large quantities of salmon for home use from their catches. It is often more efficient to preserve these fish by freezing or salting, but some people reported making dried fish out of sockeyes. When pinks and chums appeared in the commercial harvest, those fish removed' for home use were usually made into dried fish. Water-marked chum salmon were used by some elderly people to make a food called "chumla" (Aleut ***chumlax***, "something raw, not cooked"[1]). The recipe calls for soaking the heads in **putchkie** (wild celery) leaves for 10 to 15 hours. **Langdon (1982:223)** reported that:

> Two heads of [False Pass] households and several non-local Aleut crewmen reported continued consumption of choomlaw. This is an Aleut delicacy consisting of partially fermented backs and heads of dog and pink salmon

Some people also reported that the raw fish heads lightly salted were considered a delicacy.

Nearing the end of the salmon runs in August and September, False Pass households reported taking spawning and spawned out pinks and chums from local rivers by using rod and reel, or removing them by hand. Because of the lower levels of body fat, these fish were well suited to drying. Salmon eggs are another highly prized food acquired during this time of year. During the fall, who salmon also became a prominent part of the home use salmon harvest. Taken either with nets (near creeks reached by skiff such as "Mike's Creek") or rod and reel, whos were preserved by drying, smoking, freezing, and salting. Fresh silvers were also eaten fried.

One household provided the following details of its harvest and use of salmon in 1988. They removed some salmon from their commercial catch to use fresh at their fish camp. Using a subsistence net, they caught pinks, chums, sockeyes, and silvers. They dried 5 pinks, 5 chums, and 20 silvers, and smoked 30 sockeyes. They froze **five** silvers and three sockeyes. They also preserved 50 jars of **salmon** using about 10 silvers. Finally, they ate 10 pinks fresh with **petruskies** (wild parsley). They also ate the roe from their salmon catch.

[1] **Aleut spellings follow Bergsland 1994.**

FISH OTHER THAN SALMON

As noted above, every False Pass household used fish other than salmon during the 1987/88 study year, while 70.0 percent fished for and successfully harvested these fish. The mean household harvest of 190.4 pounds of other fish (60.4 pounds per capita) represented 14.7 percent of the total harvest of wild foods, third after salmon and land mammals (Fig. 6, Table 13).

Subsistence Fishing Reaulations

With the exception of halibut, trout, and char (Dolly Varden), no regulations restricted the subsistence harvest of fish other than salmon in the Alaska Peninsula Management Area in 1988. A subsistence fishing permit was required to take trout and char. Under state subsistence fishing regulations, halibut could only be taken by a single handheld line with no more than two hooks attached. There was a daily bag limit of two halibut and the possession limit was two daily bag limits (ADF&G 1988:18-19). Use of a line attached to a rod or pole was considered sport fishing under state regulations, and required a sport fishing license. The same bag and possession limits applied to both sport and subsistence halibut fishing.

Harvest Quantities and Use Patterns

Methods of harvest used by False Pass residents for taking non-salmon fish included rod and reel, handlines, skates, and seines. The latter three gear types are classified as "subsistence gear in Table 22, Table 23, and Table 24. Hand-held lines were fished from skiffs, boats, or the cannery dock. Typically, hand-held lines were fixed with halibut or cod hooks and baited with salted herring. Artificial lures including lujohns were also used to jig for bottomfish. Short skates consisting of multiple hooks were set out in the bay to catch a variety of bottomfish, such as halibut, Pacific cod, and sculpin. Typically, after a fisherman checked a skate, the catch was brought back to the community and distributed among several households. Seines were used in freshwater for small Dolly Varden (see below).

As reported in Table 22 and Table 23, False Pass households on average harvested 91.1 pounds (usable weight) of fish other than salmon using rods and reels (47.9 percent of the harvest of these fish), 76.4 pounds using subsistence methods (40.1 percent), and 22.9 pounds by removing fish from commercial harvests (12.0 percent). The most households (45.0 percent) using subsistence methods to harvest non-salmon fish, while 40.0 percent used rods and reels, and 30.0 percent removed these fish from commercial harvests (Table 24).

Although False Pass households reported using at least 13 kinds of nonsalmon fish during the study year, three species, halibut, gray cod, and Dolly Varden, dominated the harvest. On average, False Pass households harvested 64.1 pounds of halibut during the study year (20.4 pounds per capita), more than any other species but caribou, who salmon, sockeye salmon, chum salmon, pink salmon, and harbor

Table 22. Estimated Harvests in Pounds Usable Weight of Fish Other Than Salmon By Gear Type, False Pass 1987/88

	Subsistence Gear		Removed from Commercial Catch		Rod and Reel		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Jon-Salmon Fish	1,680.6	76.4	503.9	22.9	2,004.0	91.1	4,188.5	190.4
Burbot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sucker	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capelin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific Tom Cod	110.0	5.0	0.0	0.0	0.0	0.0	110.0	5.0
Pacific Cod	227.2	10.3	161.7	7.4	546.7	24.9	935.6	42.5
Sablefish	0.0	0.0	19.3	0.9	288.8	13.1	308.0	14.0
Flounder	170.5	7.8	0.0	0.0	0.0	0.0	170.5	7.8
Sole	13.2	0.6	0.0	0.0	72.6	3.3	85.8	3.9
Halibut	302.9	13.8	252.3	11.5	855.4	38.9	1,410.6	64.1
Herring	0.0	0.0	66.0	3.0	0.0	0.0	66.0	3.0
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rocktish	0.0	0.0	0.0	0.0	66.0	3.0	66.0	3.0
Sculpin	20.4	0.9	0.0	0.0	53.4	2.4	73.7	3.4
Greenling	0.0	0.0	0.0	0.0	16.5	0.8	16.5	0.8
Dolly Varden	816.4	37.1	0.0	0.0	104.7	4.8	921.1	41.9
Rainbow Trout	20.0	0.9	0.0	0.0	0.0	0.0	20.0	0.9
Steelhead	0.0	0.0	4.6	0.2	0.0	0.0	4.6	0.2

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Table 23. Percentage of Fish Other Than Salmon Harvested By Gear Type, False Pass, 1 987/88

	Subsistence Gear	Removed from Commercial Catch	Rod and Reel
All Non-Salmon Fish	40.1%	12.0%	47.9%
Burbot	0.0%	0.0%	0.0%
Sucker	0.0%	0.0%	0.0%
Capelin	0.0%	0.0%	0.0%
Pacific Tom Cod	100.0%	0.0%	0.0%
Pacific Cod	24.3%	17.3%	58.4%
Sablefish	0.0%	6.3%	93.8%
Flounder	100.0%	0.0%	0.0%
Sole	15.4%	0.0%	84.6%
Halibut	21.5%	17.9%	60.6%
Herring	0.0%	100.0%	0.0%
Spawn on Kelp	0.0%	0.0%	0.0%
Rockfish	0.0%	0.0%	100.0%
Sculpin	27.6%	0.0%	72.4%
Greenling	0.0%	0.0%	100.0%
Dolly Varden	88.6%	0.0%	11.4%
Rainbow Trout	100.0%	0.0%	0.0%
Steelhead	0.0%	100.0%	0.0%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Table 24. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, False Pass. 1987188

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Any Method
Any Non-Salmon Fish	45.0%	30.0%	40.0%	70.0%
Burbot	0.0%	0.0%	0.0%	0.0%
Sucker	0.0%	0.0%	0.0%	0.0%
Capelin	0.0%	0.0%	0.0%	0.0%
Pacific Tom Cod	5.0%	0.0%	0.0%	5.0%
Pacific Cod	15.0%	15.0%	15.0%	40.0%
Sablefish	0.0%	5.0%	5.0%	10.0%
Flounder	10.0%	0.0%	0.0%	10.0%
Sole	5.0%	0.0%	10.0%	15.0%
Halibut	15.0%	20.0%	35.0%	65.0%
Herring	0.0%	5.0%	0.0%	5.0%
Spawn on Kelp	0.0%	0.0%	0.0%	0.0%
Rockfish	0.0%	0.0%	5.0%	5.0%
Sculpin	10.0%	0.0%	15.0%	25.0%
Greenling	0.0%	0.0%	5.0%	5.0%
Dolly Varden	25.0%	0.0%	20.0%	35.0%
Rainbow Trout	5.0%	0.0%	0.0%	5.0%
Steelhead	0.0%	5.0%	0.0%	5.0%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

seal. All but one household (95.0 percent) used halibut and 65.0 percent fished for and harvested halibut. Halibut catches were widely shared, with 60.0 percent of the sample receiving gifts Of this resource (Table 13). One village resident who is an especially active fishermen explained that after he brings in a "skiff load" of halibut, he notifies others in the village to take some of his catch once he removes what he needs for his family. Also, commercial crab fishermen who pass through False Pass sometimes give halibut to village residents. In late summer, villagers catch halibut with hook and line from the cannery dock. Some households dry halibut and eat it with seal oil.

The estimated harvest of 267 gray cod by False Pass households during the study year provided about 42.5 pounds of food per household (13.5 pounds per capita), second only to halibut among non-salmon fish species. Sixty-five percent of the households used this species and 40.0 percent harvested gray cod (Table 13). Cod are taken in front of the village with longlines, during which other marine fish such as sculpins are also caught. Village residents who fish commercially for crab bring home cod that are taken incidentally. Other respondents said they occasionally receive gray cod from these and other crab fishermen. Some False Pass households dry cod.

False Pass households took an estimated 2,640 Dolly Varden during the study year for a mean household harvest of 41.9 pounds (13.3 pounds per capita) (Table 13). There were two distinct methods for harvesting Dolly Varden. The first took place in the spring in streams near the village using seines. Large numbers of small (about four to eight inches long) Dolly Varden were caught in this manner. These small fish were usually distributed widely and fried whole for immediate consumption. They are described as "delicious." The second method used hook and line, usually in salt water. This method resulted in a catch of larger fish which were often split for drying or smoking.

As shown in Table 13, small numbers of ten other kinds of fish other than salmon were used and harvested by False Pass households in 1987/88. This included sculpins (used by 35.0 percent, estimated harvest of 147 fish), herring (used by 30.0 percent, harvest of 2.2 five-gallon buckets, but received by 25.0 percent), sole (used by 20.0 percent, harvest of 29 fish), flounder (often taken incidentally in set gillnets but not commonly retained) (used by 20.0 percent, harvest of 34 fish), sablefish (black cod) (used by 15.0 percent, harvest of 88 fish), and greenling (used by 10.0 percent, harvest of 17 fish). Five percent of the households used steelhead, rainbow trout, and rockfish. Steelhead are sometimes taken incidentally in commercial salmon nets. Herring fishermen returning from the Togiak fishery give their friends at False Pass gifts of herring. Black cod and halibut are dried.

MARINE INVERTEBRATES

Harvests of marine invertebrates were very important to False Pass households during the 1987188 study year. Every household used marine invertebrates, 80.0 percent harvested them, 90.0 percent received them from other households, and 70.0 percent shared portions of their harvests with

others. The mean household harvest was 73.2 pounds (23.2 pounds per capita), 5.6 percent of the annual total (Table 13, Fig. 6).

Subsistence Regulations

In 1987/88, a permit was required to take any species of shellfish for subsistence purposes in the Alaska Peninsula-Aleutian Islands Management Area.[2] Subsistence fishing for king crab was closed from February 1 to May 31. The catch limit was six male king crab per day and in possession with no size limit. For Dungeness and Tanner crab, the catch limit was 12 male crab per day and in possession with no size limit. There were no other closed seasons or limits for other shellfish (ADF&G 1987a).

Harvest Methods, Quantities, and Uses

In 1987/88, False Pass households used at least 13 kinds of marine invertebrates. The most widely used were octopus (also called "cuttlefish" locally) (90.0 percent), chitons ("bidarkies") (85.0 percent), and king crab (75.0 percent). Octopus were an especially popular food in False Pass, The estimated harvest was 111 octopus for a mean household harvest of 20.2 pounds (6.4 pounds per capita). While 50 percent of the households harvested this species, 85.0 percent received octopus from other households, making octopus one of the most commonly shared resources in the community (Table 13).

Of all marine invertebrates, chitons ("bidarkies") made the largest contribution to the mean household harvest of wild foods at 22.5 pounds (7.1 pounds per capita). Three-quarters of the False Pass households harvested chitons (Table 13). One household reported harvesting about a gallon of chitons during each of four collecting trips. A second household estimated that three gallons was a more usual harvest for them with collecting trips happening about five times a year. The children in this household combed the beaches for chitons and other marine invertebrates with their grandfather.

Although 75.0 percent of the False Pass households used king crab, only 20.0 percent harvested this resource (with pots in front of the village) while 70.0 percent received king crab. It was wmmon for False Pass households to receive gifts of crab from commercial crabbers who were using the support facilities in the village. Tanner crab were also obtained in this manner. Note that 60.0 percent of the households used and received Tanner crab, while only 15.0 percent harvested Tanner crab themselves (Table 13).

Over half of the False Pass households (55.0 percent) used butter clams, although like crab, far more households received (45.0 percent) this resource than harvested them (15.0 percent). Respondents reported that sea otters had reduced the availability of butter clams near the village. Many households said they received butter clams' as gifts from relatives and friends in King Cove. One respondent described a typical shipment as about 10 gallons. Razor clams can be found at lzembek Lagoon and at

[2] Very few permits were issued to False Pass residents because the permits were not available in the village and few residents were aware of the permit requirement. The Alaska Board of Fisheries eliminated this requirement in 1993.

the west end of Bechevin Bay. Twenty percent of the False Pass households used razor clams, and 10.0 percent harvested them (Table 13)

Yet another popular marine invertebrate food in False Pass was sea urchins ("sea eggs"), used by 40.0 percent of the households and harvested by 30.0 percent. The estimated 18 gallons of sea urchins harvested contributed about 0.4 pounds to the mean household harvest of wild foods. False Pass residents also received sea urchins and razor clams from King Cove (Table 13). In addition, a few False Pass households used small amounts of "hair crab," little neck clams, mussels, snails, Dungeness crab, steamer clams, and limpets (Table 13).

MARINE MAMMALS

More than half (60.0 percent) of the households in False Pass used marine mammal products during the 1987/88 study year. Thirty percent of the households hunted and harvested marine mammals, while 55.0 percent received gifts of marine mammals from successful harvesters in other households. False Pass residents used three kinds of marine mammals during the study year: harbor seal, sea lion, and gray whale. The mean household harvest of these three species of 79.7 pounds usable weight (25.3 pounds per capita) was 6.1 percent of the total wild resource harvest This may have been slightly higher than some other years because of the salvaging of a beached gray whale during the study year (see below) (Table 13, Fig. 6).

Subsistence Huntina Reaulations

Under the provisions of the federal Marine Mammal Protection Act in effect during the study year, only Alaska Natives living in coastal communities could hunt marine mammals. There were no closed seasons, annual harvest limits, or other restrictions on the subsistence harvest, other than that it be done in a nonwasteful manner. Beginning in 1988, the US Fish and Wildlife Service began requiring the tagging of sea otter pelts.

Harbor Seals

False Pass hunters from 30.0 percent of the community's households harvested an estimated 26 harbor seals in 1987788. This accounted for a mean household harvest of 67.2 pounds (21.3 pounds per capita) (Table 13). Forty percent of the households received gifts of harbor seal. Several households reported that they rendered seal fat into oil for use with dried fish. Writing of the early 1980s, Langdon (1982:223)noted:

> An item that was prominently mentioned by 2/3 of the [False Pass] households was seal oil. At least two heads of household referred to it by its Aleut name, chudow [*chadux*].

The meat and ribs from harbor seals are also used. At least one village household prepares braided seal intestines. One active seal hunter said that after a successful hunting trip he calls people over the CB radio to come to his house for part of the harvest. He added that he "had a hard time keeping enough for (himself)" because of the popularity of and demand for seal in the village. Another active hunter reported that he typically hunted seals after he finished commercial fishing in the fall. He added that if caribou are low during the winter, he puts more effort into hunting seals.

Since 1992, a local research assistant has conducted semiannual surveys in False Pass to record harvests and uses of harbor seals and sea lions as part of a multiregional harvest assessment program (Wolfe and Mishler 1996). Findings for False Pass are reported in Table 25 and Figure 17. Estimated harvests of harbor seals by False Pass hunters have ranged from a low of 13 in 1994 to a high of 26 in 1987188 and 1995.[3] A majority of households used harbor seal in each of the five study years, with the estimated number of hunting households ranging from about five to eight. As illustrated in Figure 18, False Pass hunters harvested harbor seals year-round during the 1992 - 1995 study period, with peak harvests occurring in fall (September and October) and again in winter (January, February, and March).[4]

Sea Lions

Only one sampled household in False Pass reported hunting and harvesting a sea lion during the 1987/88 study year. This animal was taken near Unalaska while the household was engaged in commercial fishing, and was used there. Another household reported that generally at False Pass today, sea lions are rarely harvested, and only the flippers of sea lions are used at present However, one young household head recalled that when he was a boy at Belkovsky, hunters sometimes returned with a "boat full of sea lions," which elders distributed throughout the community. No False Pass households reported any harvest or use of sea lions to a local research assistant in 1992 through 1995 during the harvest assessment program (Wolfe and Mishler 1996).

Gray Whale

False Pass residents do not hunt gray whales. However, these whales occasionally wash ashore within the village's harvest area. If the whale is located in time, village residents salvage the blubber. The meat from beached whales is not used. Such an event occurred in the summer of 1988 when a whale washed ashore at Krenitzen Point, about 14 miles from the village. One household salvaged about 50 pounds of whale blubber which they distributed to at least three other False Pass households. The blubber is salted in buckets for use with dried fish.

[3] This semiannual survey has also collected data on animals struck and lost. False Pass hunters stuck and lost no harbor seals in 1992 or 1993, two in 1994, and one in 1995 (Wolfe and Mishler 1996).
[4] Figure 8 reports "takes' par month. "Takes" includes harvests and animals struck and lost.

Table 25. Uses and Harvests of Harbor Seals, False Pass

Year	Number of Households'	Percentage of Households					Estimated Harvest
		Using	Hunting (Harvesting[1]		Receiving	Giving	
1987188	22	55.0%	30.0%	30.0%	40.0%	30.0%	26
1992	18	82.4%	47.1%	35.3%	70.6%	41.2%	18
1993	20	65.0%	30.0%	30.0%	40.0%	40.0%	19
1994	21	65.0%	30.0%	25.0%	45.0%	30.0%	13
1995	20	58.8%	41.2%	41.2%	23.5%	41.2%	26

[1] Only Alaska Native households were interviewed for 1992 - 1995

Sources: Scott et al. 1995; Wolfe and Mishler 1993, 1994, 1995, 1996

Figure 17. Estimated Subsistence Harvests of Harbor Seals, False Pass

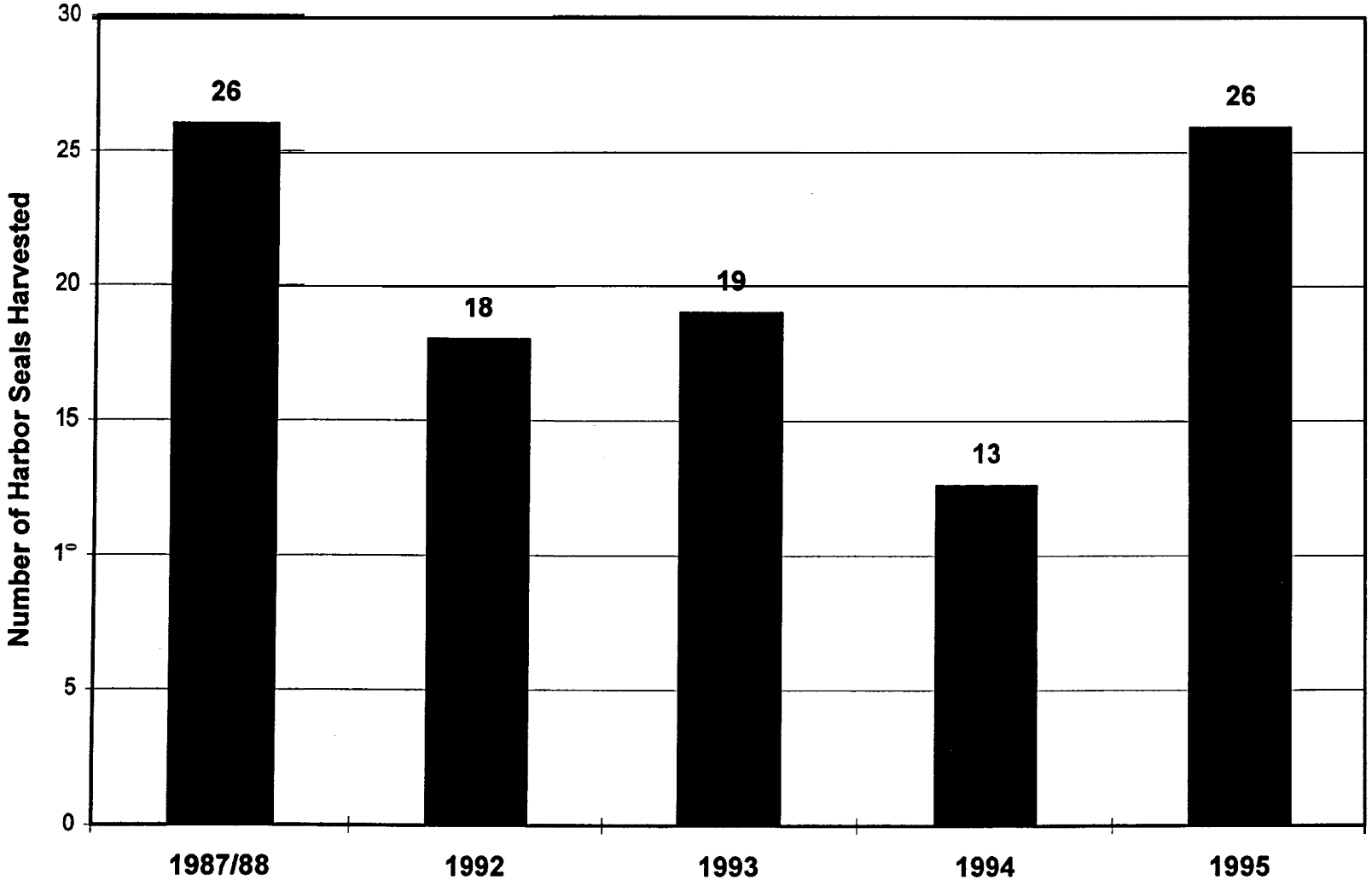
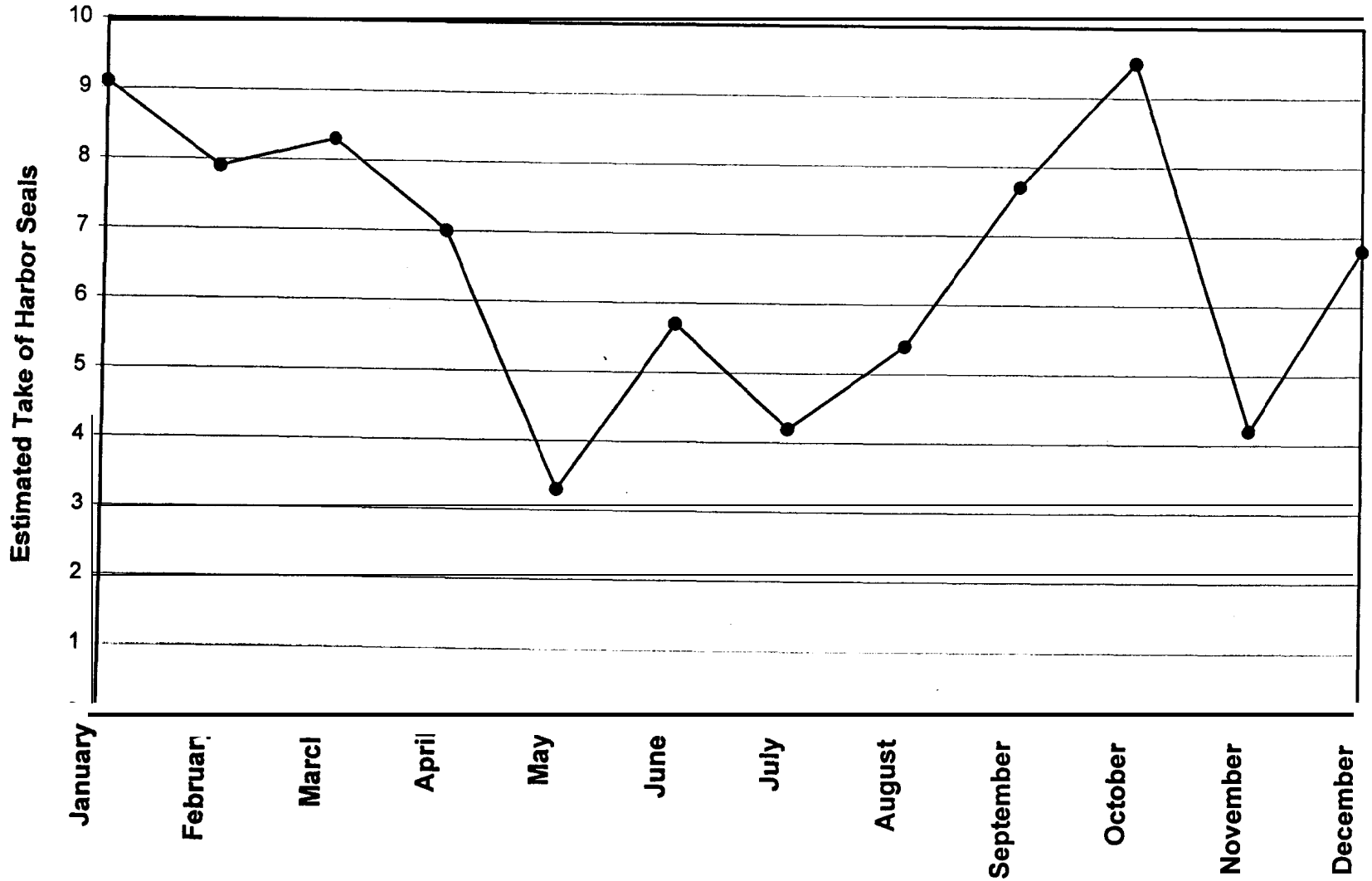


Figure 18. Takes of Harbor Seals by Month, False Pass, 1992 - 1995



Beached whales are probably not salvaged annually at False Pass, but neither is this use particularly rare. For example, one respondent recalled that just a few years before the survey, a gray whale washed up near King Cove. She and her family traveled to the site and filled two five gallon buckets with blubber. For a discussion of the Aleuts' traditional salvaging of whales, see Laughlin (1980).

Other Marine Mammals

No households reported using or hunting fur seals or sea otters during the study period. However, a few False Pass households said they had taken sea otters over the last several years before the survey. The skins were tanned commercially and were used as blankets on chairs and couches. No sea otter pelts were tagged in False Pass as part of the US Fish and Wildlife Service marking and tagging program in 1988 through 1992 (Stephensen, Cramer, and Burn 1994:24).

LAND MAMMALS

As noted above, with a mean household harvest of 250.0 pounds usable weight (79.4 pounds per capita), land mammals made up 19.2 percent of the total resource harvest of False Pass households during the 1987188 study year (Fig. 6). This was more than any other resource category except salmon. Ninety percent of the sample used land mammals, while 40.0 percent harvested game. Land mammal harvests were shared frequently and widely in the community, with 85.6 percent of the households receiving gifts of game and 35.0 percent (all of the successful hunters of big game) giving away portions of their takes (Table 13, Fig. 4, Fig. 6).

Caribou

As estimated in pounds usable weight, caribou made a larger contribution to False Pass's 1987/88 subsistence harvest than any other resource. Hunters from 35.0 percent of the households killed an estimated 34 caribou during the study year for a mean household harvest of 232.5 pounds (73.8 pounds per capita). Half the households hunted caribou during the study period. Successful hunters shared their catch with 85.0 percent of the community's households (Table 13). Harvests ranged from one caribou to 12 caribou per successful household. Langdon (1982:222-3) reported a range of household caribou harvests from two to 15 animals.

False Pass hunters harvest caribou exclusively from the Southern Alaska Peninsula Caribou Herd (SAPCH). The areas used by False Pass to hunt caribou are shown in Figure 9 and regulations for hunting caribou in Game Management Units 10 (Unimak Island) and 9D are summarized in Table 26. As shown in Table 26, since 1986, subsistence hunting for the SAPCH has become more restricted. This has been the consequence of reduced caribou numbers, which is probably related to declining range conditions. Fall, Walker, and Stanek (1990) discuss subsistence use patterns for this herd and recent

Table 26. Caribou Hunting Regulations, Game Management Units 9D and 10 (Unimak Island), 1979/80 to 1996197

Year	Season	Bao Limit
1979-80	August 10 - March 31	Four antlered caribou; not more than one may be taken from Aug. 10 - Oct. 31.
1980-81	Same as 1979-80	Same as 1979-80
1981-82	Same as 197980	Four caribou; not more than one may be taken from Aug. 10 - Oct. 31
1982-83	Same as 1979-80	Same as 1981-82
1983-84	Same as 1979-80	Same as 1981-82
1984-85	Same as 1979-80	Four caribou; not more than one may be taken from Sept. 1 - Oct. 31
1985-86		
Subsistence	Aug. 10 -March 31	Four caribou; not more than two may be taken Aug. 10 - Aug 31;not more than one may be taken from Spt. 1 - Oct. 31.
Resident	Aug. 10 - Oct. 31	Four caribou; not more than two may be taken Aug. 10 - Aug 31;not more than one may be taken from Spt. 1 - Oct. 31.
Non-resident	Aug. 10 - Oct. 31	Two caribou; not more than one may be taken from Sept. 1 - Oct. 31.
1986-87		
Subsistence	Same as 1985-86	Same as 1985-86
Resident	Aug. 10 - March 31	Same as 1985-86
Non-resident	Aug. 10 - March 31	Same as 1985-86
1987-88[a]		
Subsistence	Same as 1985-86	Two caribou
Resident	Aug. 10 - Oct. 31	One caribou
Non-resident	Sept. 1 - Oct. 31	One caribou
1988-89		
Subsistence	Sept. 1 - March 31	Two caribou
Resident	Sept. 1 -Oct. 31	One caribou
Non-resident	Sept. 1 -Oct. 31	One caribou
1989-90	Same as 198889	Same as 1988-89
1990-91		
Resident	Sept. 1 - March 31	One bull
Non-resident	Sept. 1 - Oct. 31	One Bull

[Continued]

Table 26. [continued] Caribou Hunting Regulations, Game Management Units 9D and 10 (Unimak Island), 1979180 to 1996197

Year	Season	Bag Limit
1991-92		
Resident	Aug. 10 - Sept. 30, Dec 1 - March 31	One bull
Non-resident	Sept. 1 - Sept. 30	One bull
1992-93	Some as 199 l-92	
1993-94[b]		
Resident	Aug. 10 - Sept. 30, Dec 1 - March 31	One bull
Non-resident	Sept. 10 - Sept 30	One bull
1994-95[b]	Same as 1993-94	
1995-96	No open season	
1996-97	No open season	

[a] By an emergency order dated 8/26/87, all caribou hunting seasons in GMU 9D and Unimak Island in GMU 10 were dosed, effective 11:59 p.m. on August 31, 1987. A subsistence season was opened from Nov. 17 through January 17 by an emergency order dated 1 1/17/87. The bag limit was set at two caribou. The resident and non-resident seasons remained dosed.

[b] By an emergency orders issues prior to the season, the season was dosed due to the herd being below the minimum population objective in both 1993/94 and 1994/95.

regulatory changes up to the 1989190 season. In 1993/94, ADF&G closed the season by emergency order prior to its opening because the estimated herd size was below population objectives. The Federal Subsistence Board subsequently also closed its season on federal lands in GMU 9D and 10 (Unimak Island). Into late 1996, the state and federal caribou hunting seasons remained closed in these management units. Given the importance of caribou to False Pass as evidenced by the survey findings, the status of this herd and the regulations which govern its use are key subsistence issues for the community.

At least one False Pass household reported that it dries a portion of its caribou meat indoors after soaking it in soy sauce. Most caribou meat, however, is either eaten fresh or frozen. As freezing weather persists, meat is kept by hanging it in sheds and smokehouses.

Moose

Moose are generally absent from the areas normally hunted by False Pass residents and there is no open hunting season for moose in GMUs 9D and 10. During the research in November 1988, several respondents recalled the single moose that was killed on Unimak Island in the mid 1970s, the only one within memory. As shown in Table 13, two households (10.0 percent) reported using moose meat during the study year that they had received as gifts from successful hunters in other communities.

Wild Cattle

During the study year, one interviewed False Pass household (5.0 percent) traveled to Sanak Island and harvested a cow from a feral cattle herd. Another reported that he usually hunts wild cattle but did not during the study year because he already had an adequate supply of wild foods. The successful household shared the meat with two others, so that at least 15.0 percent of the community used this resource in 1987/88. The mean household harvest was 17.5 pounds (5.6 pounds per capita) (Table 13).

Hunters reported that they often travel in groups with their fishing boats to hunt wild cattle. It is a five hour trip and has to be done early in the fall as bad weather becomes a problem later in the year. The feral cattle are present on the island due to failed attempts by nonlocal interests to establish ranching operations.

Brown Bear

No sampled households in False Pass used or hunted brown bear during the 1987/88 study year. Respondents reported that brown bears are no longer used for subsistence in the community, although they have been in the past. For example, a village elder said that brown bear had not been eaten at False Pass “in years,” in part because the meat is in the best condition in the spring but bears are not available near the village at that time of year. A middle-aged woman from another household reported when she was a child at Belkofsky, men hunted brown bears which were taken for their meat and hides.

TRAPPING AND FURBEARERS

Nine kinds of furbearers inhabit the area used by False Pass for harvest activities. Trapping regulations are summarized in Table 27. In the 1987/88 study year, 15.0 percent of the False Pass households trapped for and harvested fur-bearers. Five species were taken: red fox (estimated harvest of 105 animals); ground squirrel (25 animals); land otter (6 animals); mink (4 animals); and wolf (one animal) (Table 13). None of these animals were used for food.

BIRDS AND EGGS

Birds and eggs made a notable contribution to community harvest of wild foods at False Pass during the 1987/88 study year with an average household harvest of 57.5 pounds (18.3 pounds per capita), 4.4 percent of the year's total. Ninety percent of the households in False Pass used birds or eggs in 1987/88, 75.0 percent hunted birds, 70.0 percent were successful harvesters, 75.0 percent received gifts of birds or eggs, and 60.0 percent shared portions of their catches with other households (Table 13, Fig. 4). Regulations governing the taking of birds during the study year in the areas hunted by False Pass households are summarized in Table 28.

Ptarmiaan

Ptarmigan were the birds taken in the largest quantities by False Pass hunters during the 1987/88 study year. In total, the estimated harvest was 1,222 ptarmigan for a mean household harvest of 27.8 pounds (8.8 pounds per capita). Ninety percent of the households used ptarmigan, while 65.0 percent harvested these birds. Ptarmigan were a frequently shared resource in False Pass, with 65.0 percent of the households receiving gifts of ptarmigan and 55.0 percent giving portions of their catch away (Table 13).

Migratory Birds

Overall, False Pass households used three kinds of geese and seven kinds of ducks during the 1987/88 study year. Geese included brants (50.0 percent used, 30.0 percent harvested, total estimated harvest of 73 birds, 4.0 pounds per household), Canada geese (50.0 percent used, 30.0 percent harvested, estimated harvest of 62 birds, 3.4 pounds per household), and emperor geese (40.0 percent used, 25.0 percent harvested, estimated harvest of 29 birds, 3.3 pounds per household). Teals were the ducks taken in largest numbers with a total estimated take of 263 birds, 3.6 pounds per household. Seventy percent of the households used teals and 40.0 percent harvested them. Next in harvest quantities among ducks were mallards with an estimated take of 125 birds, 5.7 pounds per household. Of False Pass households, 65.0 percent used mallards during the study year and 35.0 percent harvested

Table 27. Trapping Regulations for Game Management Units 9D and 10 (Unimak Island), July 1987 – June 1988

	GMU 9D		GMU 10 (Unimak Island)	
Species	Season	Season Limit	Season	Season Limit
Beaver[a]	Feb. 1 - March 15	20	No open season	
Coyote	Nov. 10 - March 31	None	Nov. 10 - March 31	None
Fox, Red	Nov. 10 - Feb 15	None	Nov. 10 - Feb. 15	None
Mink	Nov. 10 -Jan. 31	None	Nov. 10 - Jan. 31	None
Otter, Land[a]	Nov. 10 - March 31	None	Nov. 10 - March 31	None
Squirrel, Ground	No closed season	None	No closed season	None
Weasel	Nov. 10 - Jan 31	None	Nov. 10 - Jan. 31	None
Wolf[a]	Nov. 10 - March 31	None	Nov. 10 - March 31	None
Wolverine[a]	Nov. 10 - March 31	None	Nov. 10 - March 31	None

[a] Sealing required (5 AAC 92.170, 5 AAC 92.175).

Source: ADF&G 1987b

Table 28. Bird Hunting Regulations, Game Management Units 9D and 10 (Unimak Island), July 1987 - June 1988

Resource[a]	Limits	Open Season
Ducks	7 a day, 21 in possession[b]	Sept. 1 - Dec. 16
Sea Ducks	15 a day, 30 in possession	Sept. 1 - Dec. 16
Canada Geese	4 a day, 8 in possession[c]	Sept. 1 - Dec. 16
Cackling Canada Geese	No open season	
Brant	2 a day, 4 in possession	Sept. 1 - Dec. 16
Emperor Geese	No open season	
Ptarmigan	20 a day, 40 in possession	Aug. 10 -April 30

a In addition to a state hunting license, a federal migratory bird hunting stamp was required for all persons 16 years of age or older, and a state waterfowl tag was required for all persons except those exempted by state law

b Not more than 3 per day, or 9 in possession, could be pintail ducks.

c No more than 4 a day or 8 in possession could be any combination of Canada or white-fronted geese. The combined bag limit of Canada, white-fronted, and snow geese was 6 a day, 12 in possession.

Source: ADF&G 1987c:43-44

these ducks. Other ducks taken in smaller quantities were pintails (62 birds), scaups (33 birds), gadwalls (22 birds), swters (7 birds), and widgeons (2 birds) (Table 13).

During the household survey, False Pass migratory bird hunters were asked to estimate their harvests by two "seasons": "fall" (July through December) and "winter/spring" (January through June). Hunters also reported the specific months in which they hunted birds. Table 29 reports migratory bird hunting and harvests by season. Forty percent of all False Pass households hunted migratory birds in the winter/spring, and 50.0 percent hunted in the fall. Of the total harvest of migratory birds in the study year (as estimated in pounds usable weight), 15.2 percent was taken in the winter/spring period and 84.8 percent in the fall. With the exception of scaup (with a total harvest of just 33 birds), the majority of the harvest of each migratory bird species was taken in the fall. By month, the most households hunted migratory birds in October, September, January, and February. There was no migratory bird hunting effort in April, May, June, or July, and very little in March or August (Fig. 19). Key respondents reported that most migratory birds "just pass through" in the spring, and there is more opportunity to harvest them in fall when the birds "stop to fatten up" before continuing south.

Gull Eggs

As shown in Table 13, 65.0 percent of False Pass households used gull eggs during the 1987/88 study year. The total estimated harvest was 801 eggs for a mean household harvest of 5.5 pounds. Collecting gull eggs was a fairly specialized activity, with 25.0 percent of the households accounting for the entire harvest. Half the households received gifts of eggs. Egg harvest areas include Sankin Island in Ikatan Bay (on the south, or Pacific Ocean side of the Alaska Peninsula) and "Gull Island" (probably one of the Isanotski Islands) within Bechevin Bay.

Other Birds

A village elder reported that people at False Pass used to harvest auklettes (or "chickadees"), but this was no longer done at the time of the study. These were removed from their dens at night. Another reported that there had been no use of swans for at least 10 years and that sandhill cranes were very rare at False Pass.

EDIBLE PLANTS AND WOOD

During the 1987/88 study year, every False Pass household used and harvested wild plants. With a mean household harvest of 40.2 pounds (12.8 pounds per capita), this category made up 3.1 percent of the total harvest (Table 13, Fig. 6).

Several kinds of berries contributed the largest portion of the community's wild plant harvest with 28.9 pounds per household (9.2 pounds per capita). Types of berries included salmonberries,

Table 29. Migratory Bird Harvests by Season, False Pass, 1987/88

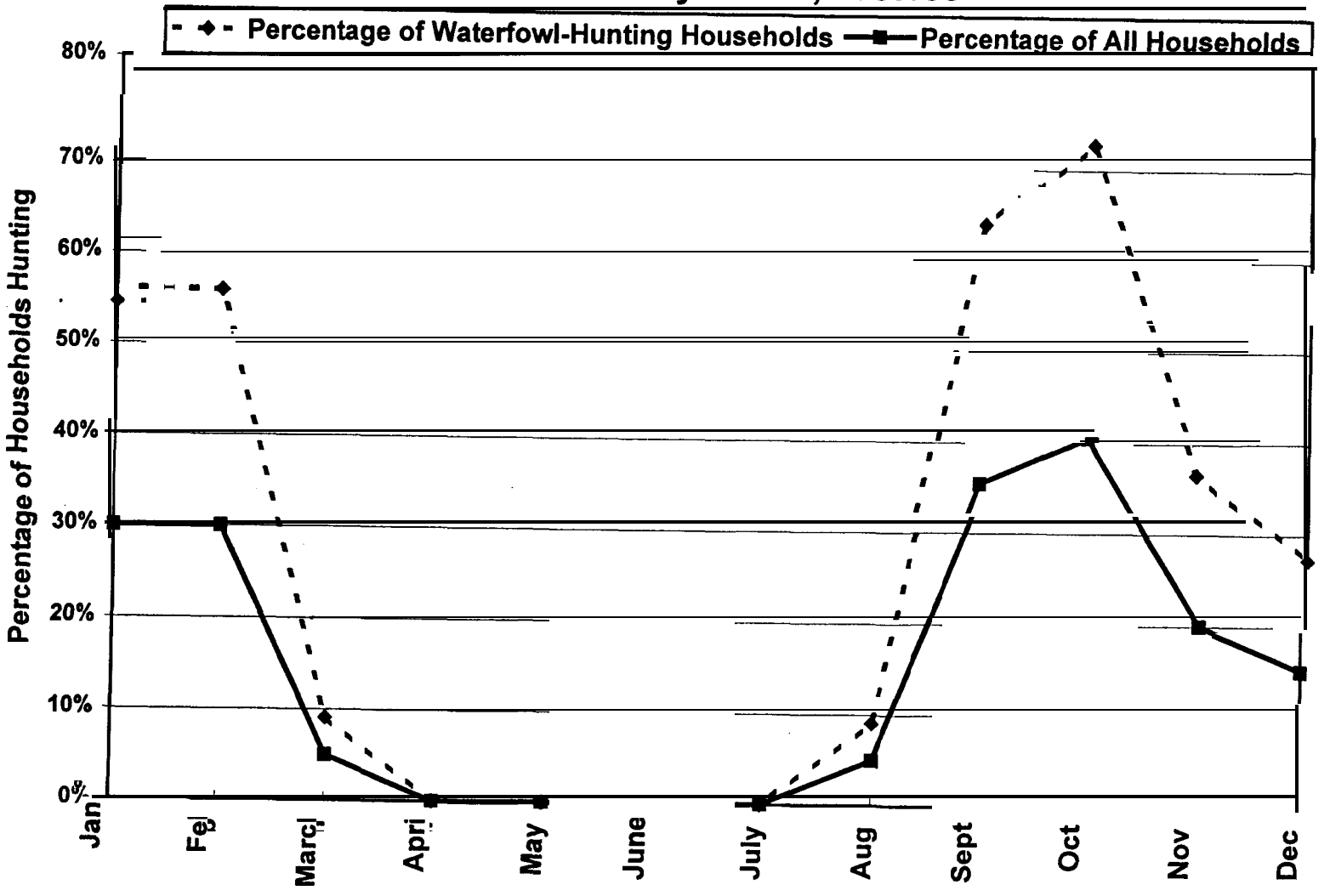
Resource	Winter/Spring Harvests						Fall Harvests					
	Percentage of Households		Pounds Harvested		Amount Harvested		Percentage of Households		Pounds Harvested		Amount Harvested	
	Hunting	Harvesting	Total	Per HH	Total	Per HH	Hunting	Harvesting	Total	Per HH	Total	Per HH
Migratory Birds	40.0%	20.0%	81.1	3.7	139.7	6.4	50.0%	45.0%	453.2	20.6	536.8	24.4
Ducks	40.0%	20.0%	81.1	3.7	139.7	6.4	40.0%	35.0%	220.7	10.0	374.0	17.0
Elder	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0	0.0	0.0	0.0
Scoter	0.0%	0.0%	0.0	0.0	0.0	0.0	5.0%	5.0%	5.9	0.3	6.6	0.3
Goldeneye	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0	0.0	0.0	0.0
Scaup	10.0%	10.0%	16.9	0.8	24.2	1.1	10.0%	10.0%	6.2	0.3	8.8	0.4
Mallard	20.0%	15.0%	26.4	1.2	26.4	1.2	30.0%	30.0%	99.0	4.5	99.0	4.5
Pintail	10.0%	10.0%	13.2	0.6	16.5	0.8	20.0%	20.0%	36.1	1.6	45.1	2.1
Wigeon	0.0%	0.0%	0.0	0.0	0.0	0.0	5.0%	5.0%	1.5	0.1	2.2	0.1
Teal	30.0%	15.0%	20.1	0.9	67.1	3.1	40.0%	35.0%	58.7	2.7	195.8	8.9
Gadwall	10.0%	10.0%	4.4	0.2	5.5	0.3	20.0%	20.0%	13.2	0.6	16.5	0.8
Geese	0.0%	0.0%	0.0	0.0	0.0	0.0	35.0%	35.0%	232.5	10.6	162.8	7.4
Brant	0.0%	0.0%	0.0	0.0	0.0	0.0	30.0%	30.0%	87.1	4.0	72.6	3.3
Emperor Geese	0.0%	0.0%	0.0	0.0	0.0	0.0	25.0%	25.0%	71.5	3.3	28.6	1.3
Canada Geese	0.0%	0.0%	0.0	0.0	0.0	0.0	30.0%	30.0%	73.9	3.4	61.6	2.8
Swan	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0	0.0	0.0	0.0
Crane	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0	0.0	0.0	0.0

[1] "Winter/spring" = January through June; most hunting took place in January and February.

[2] "Fall = July through December; most hunting took place in September and October.

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1988

Figure 19. Percentage of False Pass Households Hunting Migratory Birds by Month, 1987/88



strawberries, blackberries (also called “moss berries”), low bush cranberries, wine berries, and blueberries. Every household used berries and 90.0 percent harvested them (Table 13).

During the harvest survey, information was collected on five other types of wild plants. In total, 90.0 percent of the households used wild plants other than berries, for an average household harvest of 11.l pounds (3.5 pounds per capita). Five percent used kelp for food (Table 13). Most households used “petruskies” and ‘putchkies.” Petruskies (wild parsley or beach lovage; *Ligusticum hultenii*) are picked in the spring and then dried or frozen. They are used as a condiment with fish. Putchkies (wild celery or cow parsnip; *Heracleum lanatum*) are picked in June also and eaten raw. Some are pickled. In addition, False Pass households used wild mushrooms (bulitus) and other plants such as coltsfoot, wild rhubarb, and fireweed. Mushrooms are eaten fresh or dried.

Twenty five percent of False Pass households used wood during the 1987/88 study year, generally driftwood collected off the beaches. The estimated harvest total was 75 cords (Table 13). Wood was used to heat steam baths and to smoke fish.

CHAPTER FIVE: DISCUSSION AND CONCLUSIONS

SUMMARY OF FINDINGS

The household harvest surveys conducted in False Pass in November 1988 documented demographic and economic features of the community in the 1987/88 study year as well as characteristics of subsistence harvests and uses of wild resources. According to the study findings, in the study year False Pass was a predominantly Alaska Native community, with 84.1 percent of the population having Alaska Native ancestry (mostly the indigenous Aleut). A large majority of the community's population (79.4 percent) was born in the Aleutian Islands/lower Alaska Peninsula region.

Commercial fishing dominated the cash sector of the False Pass economy in 1987/88. Overall, 65.0 percent of the community's households participated in commercial fisheries in the study year, mostly salmon, halibut, and herring fisheries, but also crab and cod fisheries. Of the 56 jobs held by False Pass residents in the study year, 31.4 percent were in commercial fisheries. Over half the employed adults (51.9 percent) worked as commercial fishers, and commercial fishing provided 67.2 percent of the community's earned income and 61.5 percent of its total income in 1987188. Removal of fish and shellfish from commercial catches was also a very significant source of resources for home use in False Pass, contributing 30.8 percent of the total resource harvest in the study year. The 65.0 percent of the community's households which were involved in commercial fisheries in 1987/88 accounted for 92.3 percent of the total community harvest of wild resources for home use.

In the 1987188 study year, every False Pass household used, harvested, and received gifts of wild foods, while 95.0 percent gave away wild resources to other households. Harvests were substantial, with an average household harvest of 1,299.4 pounds usable weight, 412.5 pounds per capita. Subsistence harvests in False Pass in the study year were also very diverse. The average household used 22.6 kinds of wild foods, and harvested 14.0 kinds. As estimated in pounds usable weight, the community harvest was composed of 46.8 percent salmon, 19.2 percent land mammals, 14.7 percent fish other than salmon, 6.1 percent marine mammals, 5.6 percent marine invertebrates, 4.4 percent birds and eggs, and 3.1 percent wild plants. Resources used by the most households (used by 75 percent or more of the households) included who salmon, berries, sockeye salmon, halibut, caribou, ptarmigan, octopus, other wild plants, chitons, king salmon, Dolly Varden, and king crab. Resources harvested in the largest quantities (as estimated in pounds) included caribou, who salmon, sockeye salmon, chum salmon, pink salmon, harbor seal, and halibut. As in other Alaska communities with a mixed subsistence/cash economy, there was specialization in subsistence production in False Pass. In 1987/88, 30.0 percent of the households harvested 78.0 percent of the community total, which they shared widely with others.

These findings concerning the central importance of subsistence harvests in False Pass in 1987/88 are consistent with those of Langdon (1982:223-4) for the community for the early 1980s and late 1970s. Langdon concluded that:

> Subsistence activity provides a significant amount of protein for residents of False Pass. Three households [of six interviewed] reported deriving 80% of their protein from local sources and 20% from outside [i.e. commercially purchased]. Two households reported a 50-50 split on protein and the final head of household took pride in the fact that only 20% of his protein came from local sources. For the three households most active in subsistence production it was clearly a major activity through which they exemplified their Aleut identity.
>
> Subsistence activities are highly valued by residents of False Pass for a number of reasons. They are culturally valued due to being raised doing them. They provide preferred foodstuffs which are nutritionally valuable. They provide opportunities for recreating, socializing, and expressing Aleut identity. Finally, they are an important contribution to the social cohesion of the village by being a major means of exchange and distribution between kinsmen and other villagers

COMPARISONS WITH OTHER COMMUNITIES

Table 30, Table 31, and Figure 20 compare subsistence harvests in False Pass in 1987/88 with those of other Alaska Peninsula and Aleutian/Pribilof Islands communities as estimated by household harvest surveys. The per capita harvest at False Pass of 412.5 pounds was most similar to those of other small, predominantly Alaska Native communities of this region, such as Chignik Lake, Perryville, Ivanof Bay, Akutan, Nikolski, and Atka. Per capita subsistence harvests at False Pass were greater than those of the larger communities of the region, such as King Cove, Sand Point, and Unalaska (Table 30, Figure 20). In terms of the composition of the harvest, False Pass was most like the Alutiiq communities of Perryville and Ivanof Bay, with fish predominating, but with notable contributions by the other six categories of wild resources. Except for lower harvests of marine mammals and higher salmon harvests, the composition of the subsistence harvest at False Pass was not greatly dissimilar from that of other small Aleutian Islands communities of Akutan, Nikolski, and Atka.

As shown in Figure 21, the diversity of wild resource uses at False Pass in 1987/88, as measured by the average number of resources used per household, was also very similar to other small Alaska Native communities of the Alaska Peninsula and Aleutian islands, such as Atka, Perryville, Nikolski, and Chignik Lake. This diversity was lower than that of Ivanof Bay and Akutan (the communities with the highest averages among communities in which household surveys have been conducted), but was higher than Sand Point, King Cove, Chignik Bay, Chignik Lagoon, Unalaska, and the Pribilof Islands communities.

As noted earlier, removal for home use of fish and shellfish from commercial harvests made a very substantial contribution to the total wild resource harvest at False Pass in 1987188. As shown in

Table 30. Wild Resource Harvests, Pounds Usable Weight per Person by Category, Alaska Peninsula and Aleutian/Pribilof Islands Communities

Community and Year	Salmon	Other Fish	Shellfish	Land Mammals	Marine Mammals	Birds & Eggs	Wild Plants	Total
Akutan 1990/1	121.4	142.9	28.2	27.8	105.9	28.3	11.2	465.7
Atka 1994	94.8	83.6	5.2	92.2	150.7	7.9	4.8	439.3
Chignik Bay 1989	111.6	54.8	15.6	15.8	3.1	3.7	4.0	208.6
Chignik Bay 1991/2	169.1	108.6	38.4	24.1	2.6	4.3	6.3	353.4
Chignik Lagoon 1989	100.2	44.5	20.8	36.5	0.0	5.2	4.2	211.4
Chignik Lake 1989	150.9	38.5	15.6	213.8	6.4	15.1	7.3	447.6
Chignik Lake 1991/2	203.7	41.6	20.8	152.6	4.1	13.2	6.4	442.3
False Pass 1987/8	**193.2**	**60.4**	**23.2**	**79.4**	**25.3**	**18.3**	**12.8**	**412.5**
Ivanof Bay 1989	186.6	65.2	46.4	139.5	27.4	14.2	10.4	489.8
King Cove 1992	136.8	42.7	17.3	39.4	2.1	9.3	8.6	256.1
Nelson Lagoon 1986/7	85.8	8.2	16.0	130.0	1.2	12.0	4.5	257.6
Nikolski 1990/1 *	156.4	216.2	4.1	4.3	149.4	11.8	2.8	545.0
Perryville 1989	202.2	69.5	20.4	60.0	25.6	8.2	8.4	394.3
Saint George 1994	3.2	27.2	1.1	1.9	24.8	1.1	4.0	63.2
Saint Paul 1994	3.1	117.2	1.8	8.8	128.9	2.9	4.8	267.5
Sand Point 1992	137.5	54.0	17.8	28.9	4.7	5.9	7.0	255.7
Unalaska 1994	53.8	80.9	27.5	9.6	9.6	1.5	11.7	194.5

* Excludes feral cattle and sheep

Source: Scott et al. 1995

Table 31. Percentage of Wild Resource Harvests by Category, Alaska Peninsula and Aleutian Islands Communities

Community and Year	Percentage of Total Harvest Composed Of: Salmon	Other Fish	Shellfish	Land Mammals	Marine Mammals	Birds & Eggs	Wild Plants	Total
Akutan 1990/1	26.1%	30.7%	6.1%	6.0%	22.7%	6.1%	2.4%	100.0%
Atka 1994	21.6%	19.0%	1.2%	21.0%	34.3%	1.8%	1.1%	100.0%
Chignik Bay 1989	53.5%	26.3%	7.5%	7.6%	1.5%	1.8%	1.9%	100.0%
Chignik Bay 1991/2	47.9%	30.7%	10.9%	6.8%	0.7%	1.2%	1.8%	100.0%
Chignik Lagoon 1989	47.4%	21.1%	9.8%	17.3%	0.0%	2.5%	2.0%	100.0%
Chignik Lake 1989	33.7%	8.6%	3.5%	47.8%	1.4%	3.4%	1.6%	100.0%
Chignik Lake 1991/2	46.1%	9.4%	4.7%	34.5%	0.9%	3.0%	1.4%	100.0%
False Pass 1987/8	**46.8%**	**14.6%**	**5.6%**	**19.2%**	**6.1%**	**4.4%**	**3.1%**	**100.0%**
Ivanof Bay 1989	38.1%	13.3%	9.5%	28.5%	5.6%	2.9%	2.1%	100.0%
King Cove 1992	53.4%	16.7%	6.8%	15.4%	0.8%	3.6%	3.4%	100.0%
Nelson Lagoon 1986/7	33.3%	3.2%	6.2%	50.5%	0.5%	4.7%	1.7%	100.0%
Nikolski 1990/1 *	28.7%	39.7%	0.8%	0.8%	27.4%	2.2%	0.5%	100.0%
Perryville 1989	51.3%	17.6%	5.2%	15.2%	6.5%	2.1%	2.1%	100.0%
Saint George 1994	5.0%	43.0%	1.7%	3.1%	39.2%	1.8%	6.2%	100.0%
Saint Paul 1994	1.1%	43.8%	0.7%	3.3%	48.2%	1.1%	1.8%	100.0%
Sand Point 1992	53.8%	21.1%	7.0%	11.3%	1.8%	2.3%	2.7%	100.0%
Unalaska 1994	27.7%	41.6%	14.1%	4.9%	4.9%	0.8%	6.0%	100.0%

* Excludes feral cattle and sheep

Source: Scott et al. 1995

Figure 20. Subsistence Harvests of Wild Resources, Lower Alaska Peninsula and Aleutian/Pribilof Islands Communities

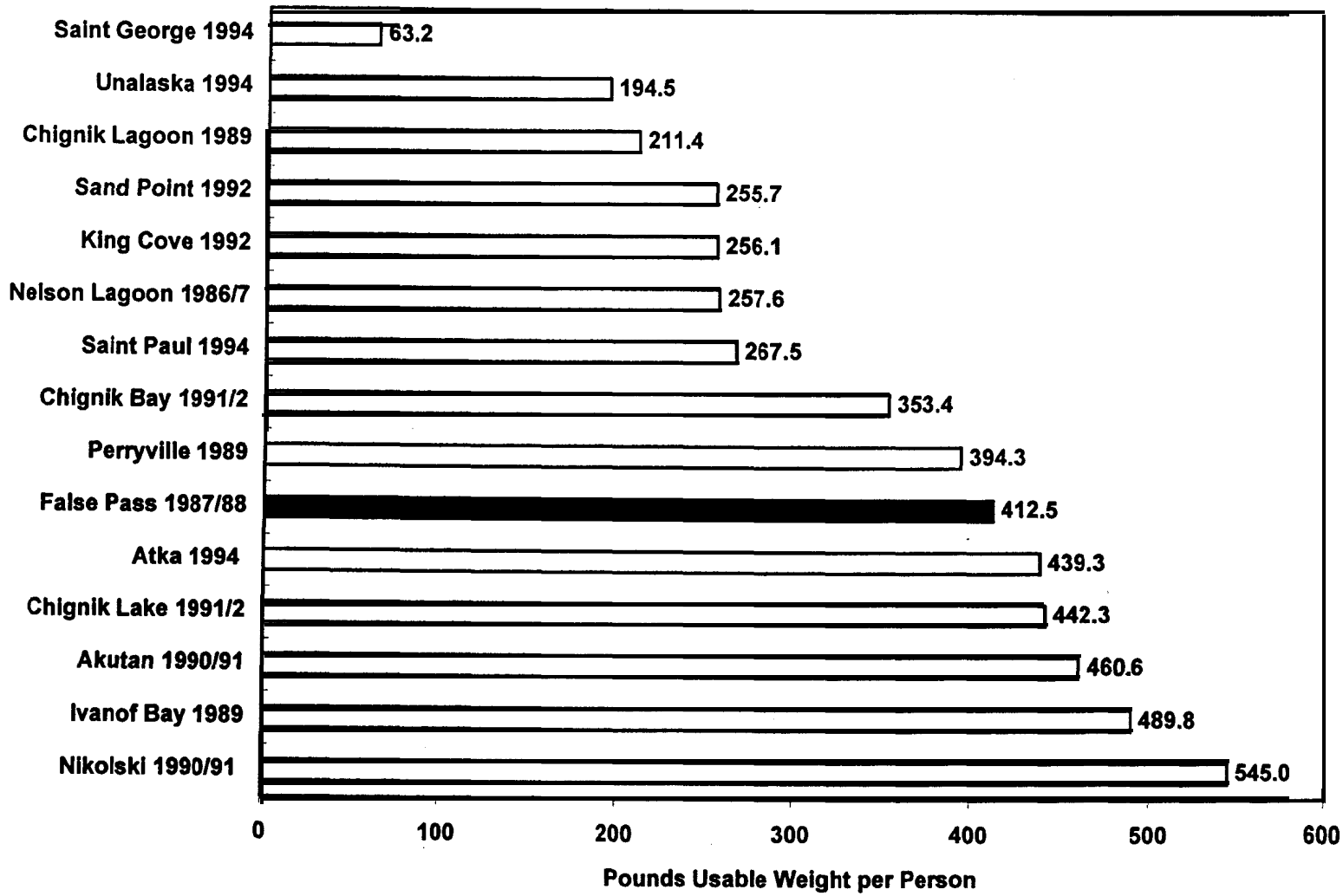


Figure 21. Average Number of Wild Resources Used per Household, Lower Alaska Peninsula and Aleutian/Pribilof Islands Communities

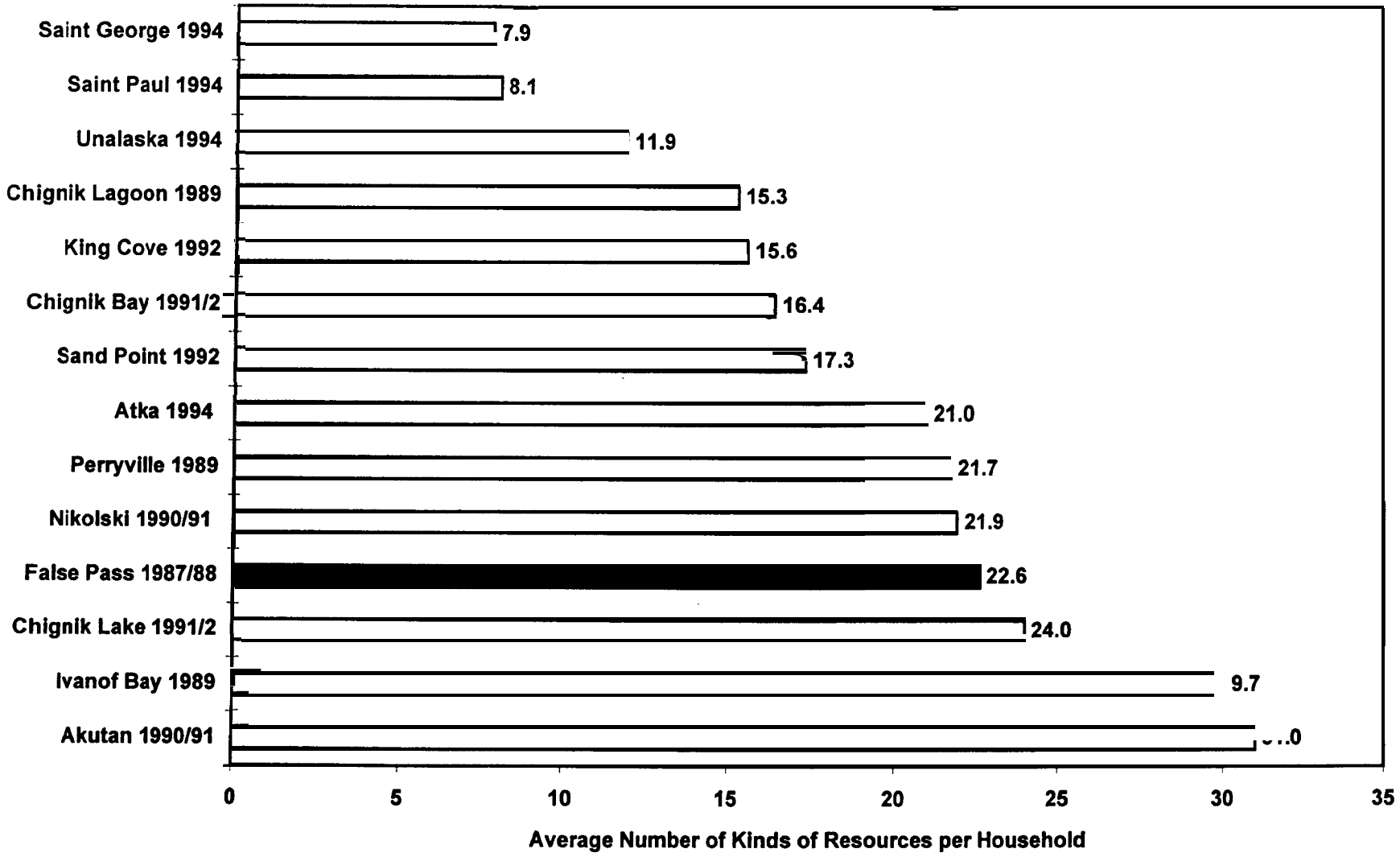


Table 32, this is consistent with findings for some other communities of southcentral and southwest Alaska. As expressed as a percentage of the total harvest for home use, removal of resources from commercial harvests at False Pass was in the top rank among communities listed in Table 32, at 30.8 percent, along with King Cove (37.7 percent), Sand Point (37.3 percent), Chignik Lagoon (36.2 percent), Chignik Bay (32.4 percent in 1991/92), and Cordova (32.0 percent in 1991). As estimated in pounds usable weight per person, False Pass ranked first, at 127.1 pounds, above Chignik Bay (115.8 pounds per person in 1991/92), King Cove (96.5 pounds per person), and Sand Point (95.2 pounds per person). Notably, communities of the Chignik Area and the lower Alaska Peninsula area are those in which commercial fisheries removal accounts for the largest portion of the total harvest for home use and the largest harvests as expressed in pounds usable weight. This reflects the central role of commercial fishing in these communities, the significance of wild resources in the local food supplies, and the cultural value which residents of these communities place on wild foods.

CONCLUSIONS

In conclusion, the research conducted in 1988 provided substantial evidence of the continued importance of subsistence harvests and uses of wild resources in the Aleutian Islands community of False Pass. All the community's households were involved in the use, harvest, and sharing of wild foods. Subsistence harvests provided a large portion of the community's total food supply. These harvests were also very diverse, ranging from salmon, halibut, and caribou to harbor seal, gull eggs, and chitons. Subsistence harvests in False Pass were broadly similar in size, range, and composition to other small Aleut and Alutiiq communities of southwest Alaska. Clearly, subsistence harvests and uses provide fundamental support for the economy and way of life of False Pass.

Table 32. Removal of Wild Resources from Commercial Harvests for Home Use, Selected Alaska Communities

Community	Year	Salmon		Other Fish		Marine Invertebrates		All Resources	
		Pounds per Capita Removed	Percent of Category	Pounds per Capita Removed	Percent of Category	Pounds per Capita Removed	Percent of Category	Pounds per Capita Removed	Percent of Category
Akutan	1990/91	1.0	0.8%	24.2	16.9%	18.9	67.0%	44.1	9.5%
Atka	1994	6.6	6.9%	7.6	9.1%	1.2	22.4%	15.3	3.5%
Chignik Bay	1989	32.1	28.7%	11.1	20.3%	1.4	8.9%	44.6	21.4%
Chignik Bay	1991/92	37.5	21.9%	71.4	65.0%	6.8	17.6%	115.8	32.4%
Chignik Lagoon	1989	37.0	36.9%	28.1	63.0%	11.5	55.3%	76.5	36.2%
Chignik Lake	1989	19.9	13.1%	22.0	56.4%	0.7	4.1%	42.5	9.4%
Chignik Lake	1991/92	47.5	23.3%	25.4	61.1%	3.1	14.7%	75.9	17.2%
Cordova	1988	27.2	45.8%	17.3	19.0%	9.5	43.7%	54.0	23.1%
Cordova	1991	44.7	51.8%	14.5	37.2%	1.4	25.6%	60.5	32.0%
Cordova	1992	36.6	51.3%	6.2	16.0%	0.3	5.9%	43.0	26.3%
Cordova	1993	26.5	45.5%	1.8	6.2%	0.4	6.8%	28.7	22.5%
False Pass	**1987/88**	**115.5**	**59.8%**	**7.3**	**12.0%**	**4.4**	**18.7%**	**127.1**	**30.8%**
Ivanof Bay	1989	4.7	2.5%	1.9	2.9%	0.0	0.0%	6.6	1.3%
King Cove	1992	70.4	51.5%	20.2	47.4%	5.8	33.8%	96.5	37.7%
Kodiak[1]	1991	8.9	17.6%	9.9	21.6%	2.1	17.5%	20.9	14.9%
Kodiak	1992	18.3	24.9%	8.7	17.4%	2.7	18.5%	29.7	18.6%
Kodiak	1993	3.5	7.3%	10.1	16.8%	2.0	21.0%	15.5	10.3%
Nelson Lagoon	1986/87	39.9	46.5%	0.0	0.0%	0.0	0.0%	39.9	15.5%
Nikolski	1990/91	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Old Harbor	1991/92	52.0	25.1%	10.7	14.6%	3.6	9.9%	66.4	17.0%
Perryville	1989	26.4	13.0%	5.9	8.6%	3.1	15.3%	35.4	9.0%
Port Lions	1993/94	6.9	4.4%	6.2	9.7%	1.7	5.5%	14.8	4.5%
Saint Paul	1994	0.1	2.4%	29.2	24.9%	0.1	8.0%	29.4	11.0%
Saint George	1994	0.0	0.0%	6.2	22.7%	0.3	32.3%	6.5	20.7%
Sand Point	1992	56.8	41.3%	31.5	58.3%	7.0	39.3%	95.2	37.3%
Unalaska	1994	2.5	4.7%	10.3	12.8%	3.5	12.9%	16.4	10.1%

[1] "Kodiak" includes housedholds along the road system in 1991, but only includes households within the Kodiak City limits for 1992 and 1993

Source: based on Scott et al. 1995

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FALSE PASS RESOURCE USE STUDY

HOUSEHOLD ID# _____ Date _____ Interviewer_____

The purpose of this survey is to gather information about the fish and game resource activities of your household from November 1987 through October 1988. When we ask "Did you use a resource?" we mean did your family eat it, serve it, or otherwise use it in your home.

1. HOUSEHOLD INFORMATION (* = Respondent)

ID #	M/F	BIRTH DATE	RESIDENCE OF PARENT WHEN YOU WERE BORN	YEAR YOU MOVED TO THIS VILLAGE	PLACE YOU MOVED FROM	MONTHS YOU SPENT HERE LAST YEAR**	PLACE YOU SPENT PART OF YEAR	ETHNICITY
1 HEAD								
2 SPOUSE								
3								
4								
5								
6								
7								
8								
9								
10								

** If yes, include community, for how long, and if this is a regular pattern for the household.

2. Using Person's I.D. #'s from the table above, indicate which household members participated in harvesting activities during 1987-1988.

Hunting ___ ___ ___ ___ ___ Fishing (include clams, etc) _____ _____

Plant Gathering ___ ___ ___

3. COMMERCIAL FISHING

Did members of your household participate in commercial fishing during 1987-1988? YES ___ NO ___

If YES, please complete the following table:

SPECIES	FISHED			LOCATION	GEAR TYPE	NUMBER REMOVED		I.D.#'S OF FISHERMEN	
	YES	NO	INCIDTL.			FOR OWN HOME USE	GAVE AWAY	Permit H.	Crew
CHINOOK (10)									
SOCKEYE (11)									
CHUM (12)									
PINK (13)									
COHO (14)									
HERRING (15)									
ROE ON KELP (16)					xxx	bkts	bkts		
KING CRAB (17)					xxx				
TANNER (19)					xxx				
SHRIMP (23)					xxx	bkts	bkts		
COD (20)					xxx				
FLOUNDER (25)					xxx				
HALIBUT (21)					xxx				
GROUND FISH (22)					xxx				
CAPELIN (24)					xxx				
OTHER (Specify)									

4. NON-COMMERCIAL FISHING

A. Did your household have a subsistence salmon fishing permit in 1988? YES _____ NO _____

ID# OF Permitholder _____

B. Did your household try to harvest or use any type of fish or marine invertebrate in 1987-1988?

YES _____ NO _____

5. Did your household try to harvest or use salmon in 1987-1988? YES _____ NO _____

If YES, please complete the following table:

SPECIES	USED		TRIED TO HARVEST		NO. HARVESTED BY GEAR TYPE				RECEIVED		GAVE AWAY	
	YES	NO	YES	NO	SUBS. NET	ICE FISH	ROD & REEL	OTHER	YES	NO	YES	NO
CHINOOK (40)												
SOCKEYE (41)												
CHUM (42)												
PINK (43)												
COHO (44)												
SPAWNOUTS (46)												
SLM (unk) (49)												

6. Did your households try to harvest or use any other fish in 1988? YES ____ NO ____

If YES, please complete the following table:

SPECIES	USED		TRIED TO HARVEST		NO. HARVESTED BY GEAR TYPE				RECEIVED		GAVE AWAY	
	YES	NO	YES	NO	SUBS. NET	ICE FISH	ROD & REEL	OTHER	YES	NO	YES	NO
SMELT (50)												
HERRING (51)								bkts.				
HRNGROEKELP (52)					xxx	xxx	xxx	bkts.				

6. (cont.)

SPECIES	USED		TRIED TO HARVEST		NO. HARVESTED BY GEAR TYPE				RECEIVED		GAVE AWAY	
	YES	NO	YES	NO	SUBS. NET	ICE FISH	ROD & REEL	OTHER	YES	NO	YES	NO
FLOUNDER (53)												
HALIBUT (55)												
RAINBOW (54)												
DOLLY VARDEN (57) ARCTIC CHAR												
BURBOT (58)												
COD (62)												
OTHER (Specify) (62)												

7. Did your household try to harvest or use any type of marine invertebrate in 1987-1988? YES ____ NO ____? If YES, please complete the table below:

SPECIES	USED		TRIED TO HARVEST		NUMBER HARVESTED	RECEIVED		GAVE AWAY	
	YES	NO	YES	NO		YES	NO	YES	NO
BUTTER CLAMS (70)					gals.				
SOFT-SHELLED CLAMS (74)					gals.				
COCKLES (72)					gals.				
CHITON (71)					gals.				
MUSSELS (76)					gals.				
SNAILS (77)					gals.				
OCTOPUS (75)									
TANNER CRAB (73)									

7. Cont.

KING CRAB (78)									
DUNGENESS CRAB (79)									
OTHER SHELLFISH									

8. MARINE MAMMALS

Did your household try to harvest or use marine mammals or marine mammal products during 1987-1988?

YES _____ NO _____ If YES, please complete the table below:

SPECIES	USED		TRIED TO HARVEST		AMOUNT OR NUMBER HARVESTED	PORTIONS USED*	RECEIVED		GAVE AWAY	
	YES	NO	YES	NO			YES	NO	YES	NO
HARBOR SEAL (80)										
FUR SEAL (81)										
SEA LION (83)										
SEA OTTER (85)										
OTHER MARINE MAMMALS (Specify)										

* Which parts were used for food?

9. LAND MAMMALS

Did your household try to harvest or use game in 1987-1988? YES _____ NO _____

If YES, please complete the following table:

SPECIES	USED		TRIED TO HARVEST		NUMBER HARVESTED	9D	10	RECEIVED		GAVE AWAY	
	YES	NO	YES	NO				YES	NO	YES	NO
CARIBOU (90)					1987 A S O 1987/88 N D J F M 1988 A S O						
MOOSE (91)											

9. Cont.

SPECIES	USED		TRIED TO HARVEST		NUMBER HARVESTED	RECEIVED		GAVE AWAY	
	YES	NO	YES	NO		YES	NO	YES	NO
BROWN BEAR (Food) (94)									
(Fur) (95)									
OTHER (Specify) GAME									

10. FURBEARERS

Did anyone in your household try to harvest or use furbearers during 1987-1988? YES _____ NO _____

If YES, please complete the following table:

SPECIES	USED		TRIED TO HARVEST		NUMBER HARVESTED	USED FOR		RECEIVED YES		NO	GAVE AWAY YES		NO	SOLD PRICE
	YES	NO	YES	NO		FOOD	FUR	FOOD	FUR		FOOD	FUR		
BEAVER (100)														
MINK (101)						xx		xx			xx			
FOX (102)						xx		xx			xx			
WOLF (103)						xx		xx			xx			
WOLVERINE (104)						xx		xx			xx			
LAND OTTER (105)						xx		xx			xx			
GROUND SQUIRREL (106)														
OTHER (Specify)														

11. PLANTS

Did your household harvest or use wild plants in 1987-1988? YES ____ NO ____

If YES, please complete the table below:

SPECIES	USED		TRIED TO HARVEST		AMOUNT HARVESTED	RECEIVED		GAVE AWAY	
	YES	NO	YES	NO		YES	NO	YES	NO
BERRIES (120)					gal.				
KELP (122)					gal.				
OTHER SEAWEED (123)					gal.				
GOOSE TONGUE (124)					gal.				
OTHER PLANTS (121)					qts.				
FIREWOOD (125)					cords				

12. BIRDS

Did your household try to harvest or use birds during 1987-1988? YES ____ NO ____

If YES, please complete the table below:

SPECIES	USED		MAP	TRIED TO HARVEST		SEASON	NUMBER HARVESTED	RECEIVED		GAVE AWAY	
	YES	NO		YES	NO			YES	NO	YES	NO
PTARMIGAN (130)											
EMPEROR (131)						J F M A M J					
(beach)*						J A S O N D					
CANADA (132)						J F M A M J					
(honkers)*						J A S O N D					

12. Cont.

SPECIES	USED YES	USED NO	MAP	TRIED TO HARVEST YES	TRIED TO HARVEST NO	SEASON	NUMBER HARVESTED	RECEIVED YES	RECEIVED NO	GAVE AWAY YES	GAVE AWAY NO
BLACK BRANT (134) (sea geese)*						J F M A M J J A S O N D					
TUNDRA SWAN (136)						J F M A M J J A S O N D					
SANDHILL CRANE (137)						J F M A M J J A S O N D					
MALLARD (138)						J F M A M J J A S O N D					
PINTAILS (139)						J F M A M J J A S O N D					
GADWALL (140)						J F M A M J J A S O N D					
WIGEON (141)						J F M A M J J A S O N D					
TEAL (142)						J F M A M J J A S O N D					
SCAUP (146)						J F M A M J J A S O N D					
OTHER DUCKS (Non-seaducks)						J F M A M J J A S O N D					

12. Cont.

SPECIES	USED YES	USED NO	MAP	TRIED TO HARVEST YES	TRIED TO HARVEST NO	SEASON	NUMBER HARVESTED	RECEIVED YES	RECEIVED NO	GAVE AWAY YES	GAVE AWAY NO
EIDERS (143) (Large) (Common/King)						J F M A M J J A S O N D					
EIDERS (143) (Small) (Stellers)						J F M A M J J A S O N D					
SCOTERS (144) (Black wings)						J F M A M J J A S O N D					
SCOTERS (144) (White wings)						J F M A M J J A S O N D					
SEADUCKS (Eiders & Scoters)						J F M A M J J A S O N D					
SHOREBIRDS (Snipe)(147)											
GULL EGGS (160)							#'s				
DUCK EGGS (162) (seaducks)							#'s				
(non-seaducks)											
SWAN EGGS (163)											

13. EQUIPMENT

A. Please indicate the number of each type of equipment that you own or regularly use:

ATV ____ Fishcamp ____ Freezer ____ Airplane ____
Drying Rack ____ Steam bath ____ Snowmachine ____ Smokehouse ____
Skiff (18 ft. or less) ____ Highway Vehicle ____ Trapping Camp ____
Other camp ____ Commercial boat ____ Nets for subsistence fishing: Own ____ Share ____

14. EMPLOYMENT HISTORY

Please complete the following information for all jobs held by the employed household members listed in question 1 between commercial salmon fishing in 1987 and commercial salmon fishing in 1988. Please include commerical fishing activities.

ID # FROM QUESTION 1	JOB TITLE	EMPLOYER	LOCATION	# OF MONTHS WORKED P/YEAR	HOURS WORKED PER WEEK	AMOUNT EARNED
				N D J F M A M J J A S O		
				N D J F M A M J J A S O		
				N D J F M A M J J A S O		
				N D J F M A M J J A S O		
				N D J F M A M J J A S O		
				N D J F M A M J J A S O		

15. Other Income Sources (Check all that apply and indicate amount)

____ Social Security Income $ ____ ____ Pension $____ ____ Food Stamps $____

____ Longevity Bonus $ ____ ____ Energy Assistance $____

____ Adult Public Assistance $ ____ ____ Native Corp. Div. $____

____ Aid to Families with Dependent Children $____ ____ Disability $____

16. Please estimate your monthly expenses:

____ Heating fuel ____ Transportation fuel ____ Water ____ Housing

____ ____ Food ____ Electricity ____ Telephone

Appendix B. Scientific Names, Units of Measure and Conversion Factors, False Pass, 1987/1988.

Resource	Scientific Name	Unit Of Measure	Conversion Factor
Chum Salmon	*Oncorhynchus keta*	INDIVIDUAL	4.69
Coho Salmon	*Oncorhynchus kisutch*	INDIVIDUAL	5.95
Chinook Salmon	*Oncorhynchus tshawytscha*	INDIVIDUAL	11.76
Pink Salmon	*Oncorhynchus gorbuscha*	INDIVIDUAL	2.52
Sockeye Salmon	*Oncorhynchus nerka*	INDIVIDUAL	3.92
Spawnouts, Salmon'		INDIVIDUAL	2.52
Pacific Tomcod	*Microgadus proximus*	INDIVIDUAL	5.00
Pacific Cod	*Gadus macrocephalus*	INDIVIDUAL	3.50
Sablefish (Black Cod)	*Anoplopoma fimbria*	INDIVIDUAL	3.50
Flounder	*Platichthys stellatus*	INDIVIDUAL	5.00
Sole'	Indentity uncertain	INDIVIDUAL	3.00
Halibut	*Hippoglossus stenolepis*	INDIVIDUAL	16.20
Herring	*Clupea harengus*	5 GALLON BUCKETS	30.00
Rockfish*	*Sebastes sp.*	INDIVIDUAL	1.50
Sculpin*	*Hemilepidotus sp.*	INDIVIDUAL	0.50
Greenling'	*Hexagrammos sp.*	INDIVIDUAL	1.00
Dolly Varden	*Salvelinus malma*	INDIVIDUAL	gear specific
Rainbow Trout	*Oncorhynchus gairdneri*	INDIVIDUAL	1.40
Steelhead	*Oncorhynchus gairdneri*	INDIVIDUAL	1.40
Caribou	*Rangifer tarandus*	INDIVIDUAL	150.00
Cattle - Feral	*Bos sp.*	INDIVIDUAL	350.00
Gray Whale	*Eschrichtius robustus*	POUNDS	1.00
Harbor Seal	*Phoca vitulina*	INDIVIDUAL	56.00
Steller Sea Lion	*Eumetopias jubatus*	INDIVIDUAL	200.00
Ptarmigan'	*Lagopus sp.*	INDIVIDUAL	0.50
Scoter*	*Melanitta sp.*	INDIVIDUAL	0.90
Scaup	*Aythya affinis*	INDIVIDUAL	0.70
Mallard	*Anas platyrhynchos*	INDIVIDUAL	1.00
Pintail	*Anas acuta*	INDIVIDUAL	0.80
Wigeon	*Anas americana*	INDIVIDUAL	0.70
Teal	*Anas crecca*	INDIVIDUAL	0.30
Gadwall	*Anas strapera*	INDIVIDUAL	0.80
Brant	*Branta bemida*	INDIVIDUAL	1.20
Emperor Geese	*Anser canagicus*	INDIVIDUAL	2.50
Canada Geese	*Branta canadensis spp.*	INDIVIDUAL	1.20
Gull Eggs'	*Larus sp.*	INDIVIDUAL	0.15
Butter Clams	*Saxidomus giganteus*	GALLONS	3.00
Razor Clams'	*Siliqua sp.*	GALLONS	3.00
Pacific Littleneck Clams	*Protothaca staminea*	GALLONS	3.00
Dungeness Crab	*Cancer magister*	INDIVIDUAL	0.70
King Crab'	*Paralithodes sp., Lithodes sp.*	INDIVIDUAL	2.30
Korean Horsehair Crab	*Erimacrus isenbeckii*	INDIVIDUAL	0.70
Mussels	*Mytilus edulis*	INDIVIDUAL	1.50
Chitons	*Katharina tunicata*	GALLONS	4.00
octopus	*Octopus dofleini*	INDIVIDUAL	4.00
Sea Urchin	*Strongylocentrotus dmebachiensis*	GALLONS	0.50
Snails	*Fusitriton oregonensis*	GALLONS	1.50
Limpets'	Identity uncertain	GALLONS	3.00
Tanner Crab*	*Chionoecetes sp.*	INDIVIDUAL	1.60
Berries*		GALLONS	4.00
Plants/Greens/Mushrooms*		GALLONS	4.00
Seaweed/Kelp'		GALLONS	4.00

• Probably includes two or more species

SIC	Sector Industry
	AGRICULTURE, FORESTRY & FISHING
1	Agricultural Production - Crops
2	Agricultural Production - Livestock
7	Agricultural Services
8	Forestry
9	Fishing, Hunting & Trapping
	MINING
10	Metal Mining
12	Coal Mining
13	Oil & Gas Extraction
14	Nonmetallic Minerals exc. Fuels
	CONSTRUCTION
15	General Building Contractors
16	Heavy Construction Contractors, exc. Buildings
17	Special Trade Contractors
	MANUFACTURING
20	Food & Kindred Products
22	Textile Mill Products
23	Apparel & Other Textile Products
24	Lumber&Wood Products
25	Furniture & Fixtures
26	Paper & Allied Products
27	Printing & Publishing
28	Chemicals & Allied Products
29	Petroleum & Coal Products
30	Rubber & Misc. Plastics Products
31	Leather & Leather Products
32	Stone, Clay & Glass Products
33	Primary Metal Industries
34	Fabricated Metal Products
35	Industrial Machinery & Equipment
36	Electronic & Other Electric Equipment
37	Transportation Equipment
38	Instruments & Related Products
39	Miscellaneous Manufacturing Industries
	TRANSPORTATION, COMMUNICATION & UTILITIES
40	Railroad Transportation
41	Local & Interurban Passenger Transit
42	Trucking & Warehousing
44	Water Transportation
45	Transportation by Air
46	Pipelines, exc. Natural Gas
47	Transportation Services
48	Communication
49	Electric, Gas & Sanitary Services

WHOLESALE TRADE

50 Wholesale Trade - Durable Goods
51 Wholesale Trade - Nondurable Goods

RETAIL TRADE ,

52 Building Materials & Garden Supplies
53 General Merchandise Stores
54 Food Stores
55 Automotive Dealers & Service Stations
56 Apparel & Accessory Stores
57 Furniture & Home Furnishings Stores
58 Eating & Drinking Places
59 Miscellaneous Retail

FINANCE, INSURANCE & REAL ESTATE

60 Depository Institutions
61 Nondepository Institutions
62 Security & Commodity Brokers
63 Insurance Carriers
64 Insurance Agents, Brokers & Service
65 Real Estate
67 Holding 8 Other Investment Offices

SERVICES

70 Hotels & Other Lodging
72 Personal Services
73 Business Services
75 Auto Repair, Services & Parking
76 Miscellaneous Repair Services
78 Motion Pictures
79 Amusement & Recreation Services
80 Health Services
81 Legal Services
82 Education Services
83 Social Services
84 Museums, Botanical, Zoological Gardens
86 Membership Organizations
87 Engineering & Management Services
88 Private Households
89 Miscellaneous Services

300 FEDERAL GOVERNMENT

400 STATE GOVERNMENT

LOCAL GOVERNMENT
500 Administration
550 Education