POLARIS:
Harvest Assessment for Food Security and Migration Pillars

Original Presentation by
Bronwyn Jones, ADF&G and Cody Larson, BBNA

Survey Sample Achievement

Table n-m.–Sample achievement, Dillingham, 2021.

Sample information	Community Dillingham
Number of dwelling units	816
Survey goal	20%
Households surveyed	155
Households failed to be contacted	58
Households declined to be surveyed	23
Households moved or occupied by nonresident	149
New households	6
Total households attempted to be surveyed	236
Refusal rate	12.9%
Final estimate of permanent households	667
Percentage of total households survyed	23.2%
Survey weighting factor	4.30
Sampled population	445
Estimated population	1,914.9

Source ADF&G Division of Subsistence household surveys, 2022.

Table X-X.–Survey length, study communities,Dillingham 2021.

Community	Interview length (in minutes) Average	Minimum	Maximum
Dillingham	51	9	155

Source ADF&G Division of Subsistence household surveys, 2022.

Population Estimates

Table n-m.–Population estimates, Dillingham, 2021.

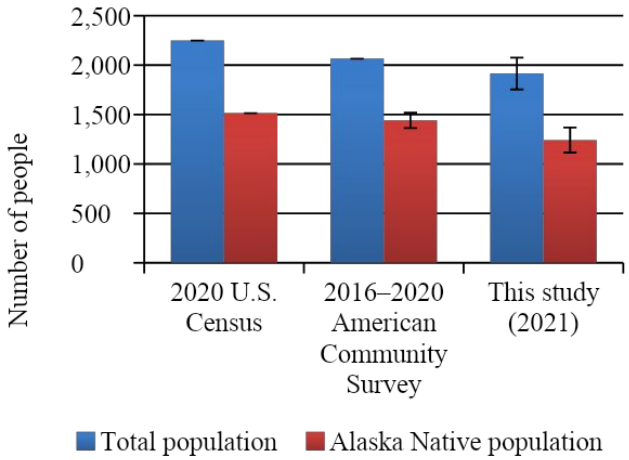
	Census (2020)	5-year American Community Survey (2016–2020) Estimate	5-year American Community Survey (2016–2020) Range[a]	This study (2021) Estimate	This study (2021) Range[b]
Total population					
Households	821	697.0	538 – 856	667.0	
Population	2,249	2,065.0	2,065 – 2,065	1,914.9	1,753 – 2,076
Alaska Native					
Population	1,514	1,441.0	1,364 – 1,518	1,241.1	1,115 – 1,368
Percentage	67.3%	69.8%	66.1% – 73.5%	64.8%	58.2% – 71.4%

Sources U.S. Census Bureau (n.d.) for 2020 decennial census data and for American Community Survey (ACS) five-year average estimates for 2016-2020; ADF&G Division of Subsistence household surveys, 2022, for 2021 estimates.

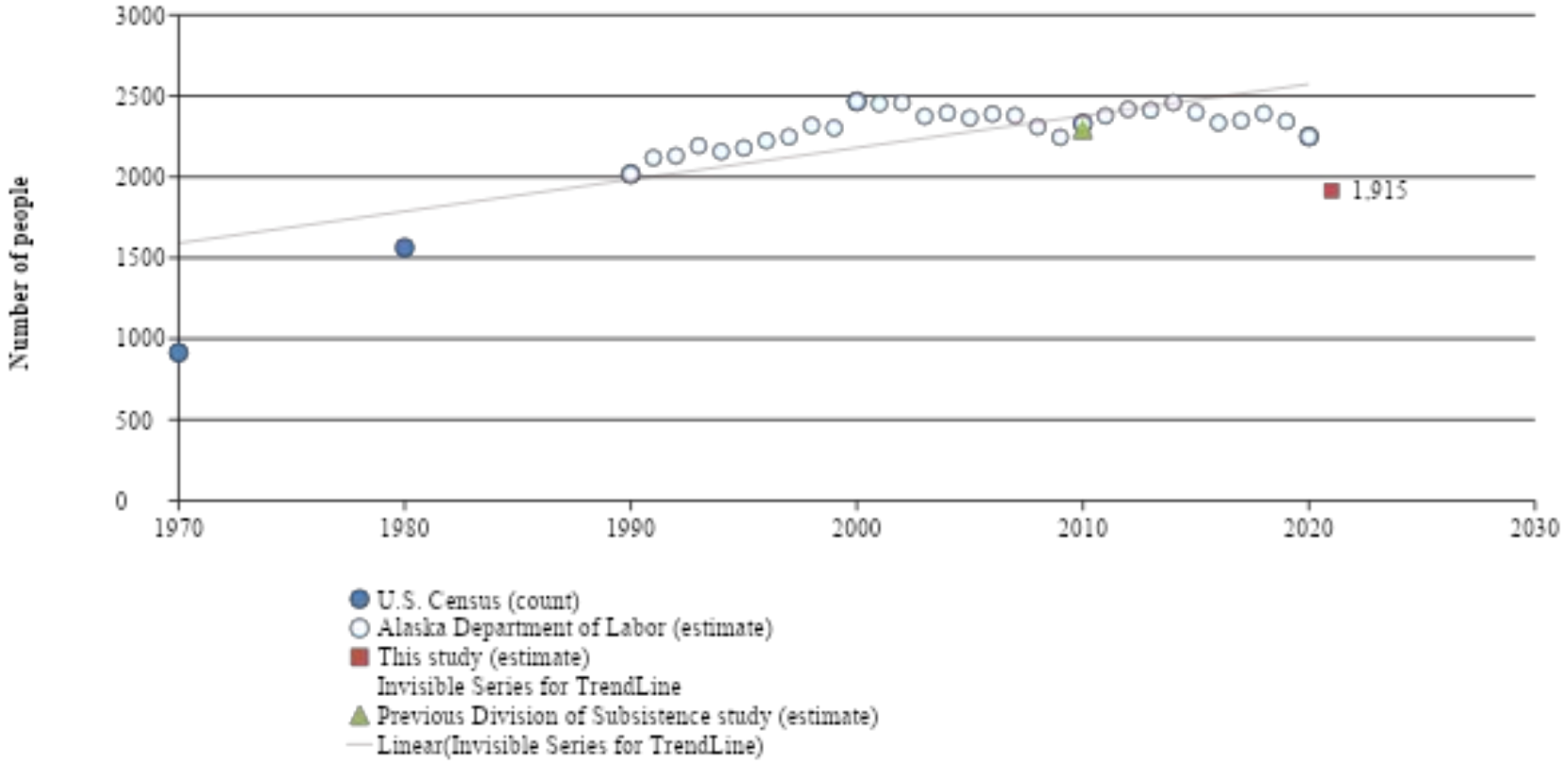
Note Division of Subsistence household survey eligibility requirements differ from those used by ACS.

a. ACS data range is the reported margin of error.

b. No range of households is estimated for division surveys.



Population Estimates



Population Characteristics

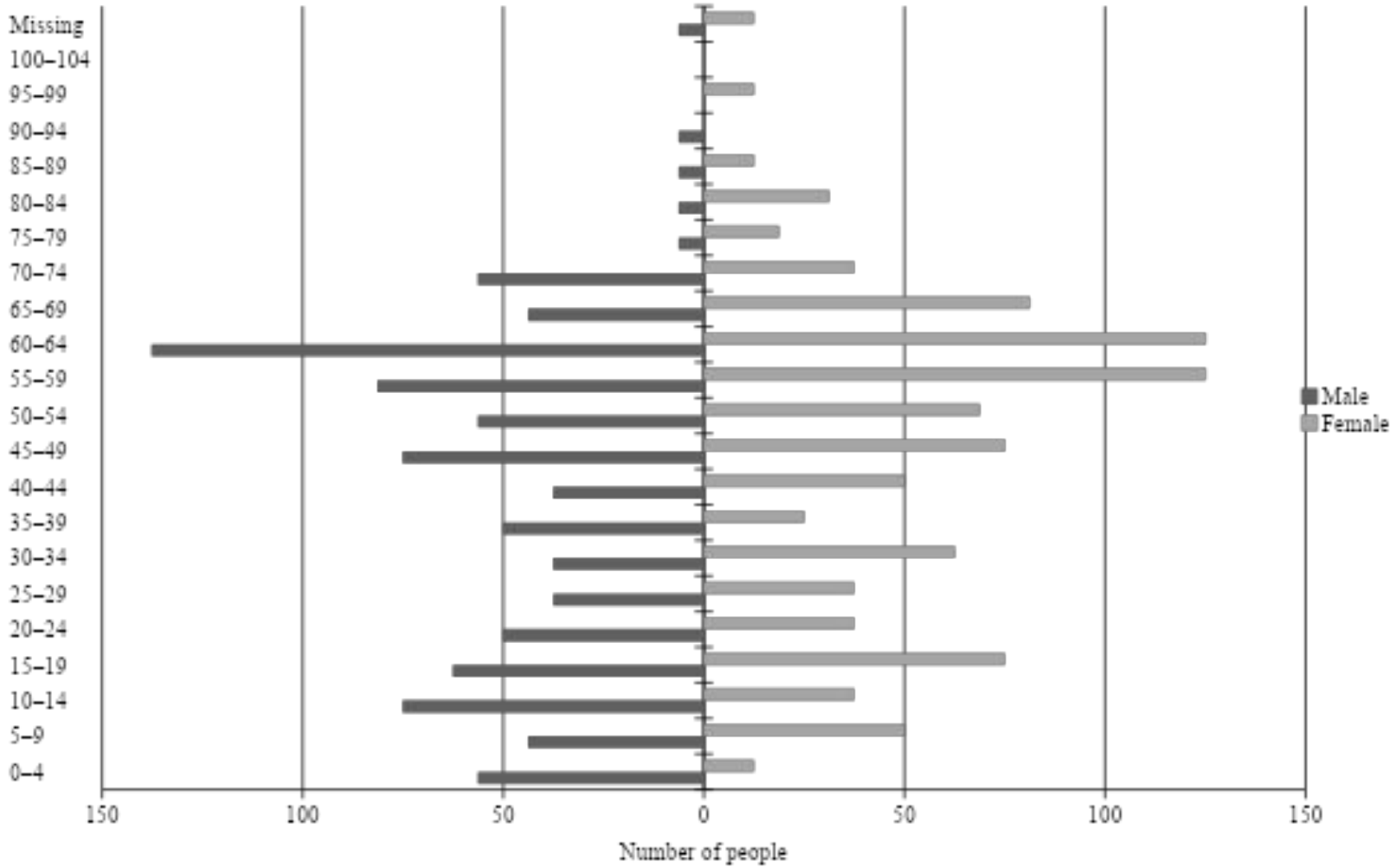
Table n-m.–Sample and demographic characteristics, Dillingham, 2021.

Characteristics	Community Dillingham
Sampled households	155
Eligible households	667
Percentage sampled	23.2%
Sampled population	445
Estimated community population	1,914.9
Household size	
Mean	2.9
Minimum	1.0
Maximum	8.0
Age	
Mean	35.9
Minimum[a]	0
Maximum	86
Median	35
Length of residency	
Total population	
Mean	22.8
Minimum[c]	1
Maximum	87
Heads of household	
Mean	53.9
Minimum[c]	1
Maximum	86
Alaska Native	
Estimated households[b]	
Number	434.6
Percentage	65.2%
Estimated population	
Number	1,242.1
Percentage	64.9%



Beaver Round-Up parade, Dillingham

Population Profile



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Birthplaces

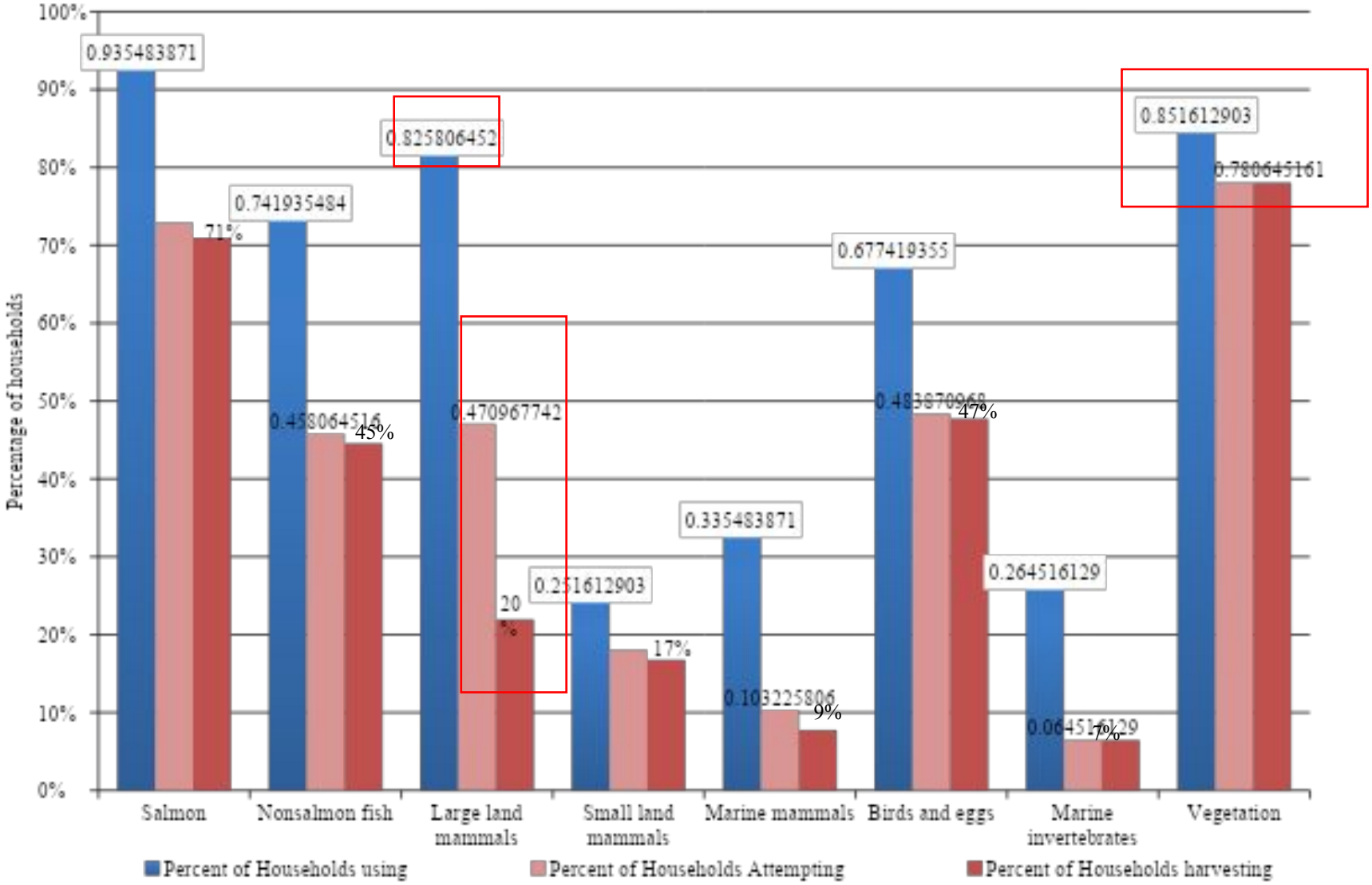
Table n-m.–Birthplaces of household heads, Dillingham, 2021.

Birthplace	Percentage
Akiachak	0.4%
Aleknagik	0.4%
Anchorage	2.4%
Utqiagvik (Barrow)	0.8%
Bethel	0.8%
Clarks Point	3.2%
Cordova	0.4%
Dillingham	31.3%
Ekwok	0.8%
Goodnews Bay	0.4%
Iliamna	0.4%
Juneau	0.4%
Kokhanok	0.4%
Koliganek	1.2%
Manokotak	2.0%
Naknek	0.8%
Nelson Lagoon	0.4%
New Stuyahok	2.8%
Nome	0.4%
Palmer	0.4%
Pilot Point	0.4%
Platinum	0.4%
Portage Creek	0.4%
Soldotna	0.4%
South Naknek	0.4%
Togiak	2.4%
Wasilla	0.4%
Nushagak	1.6%
Ekuk	1.2%
Igushik	0.4%
Mulchatna/Tikchik River	0.4%
Douglas	0.4%
Other Alaska	0.4%
Other U.S.	36.1%
Foreign	4.0%
Outside Alaska	0.4%

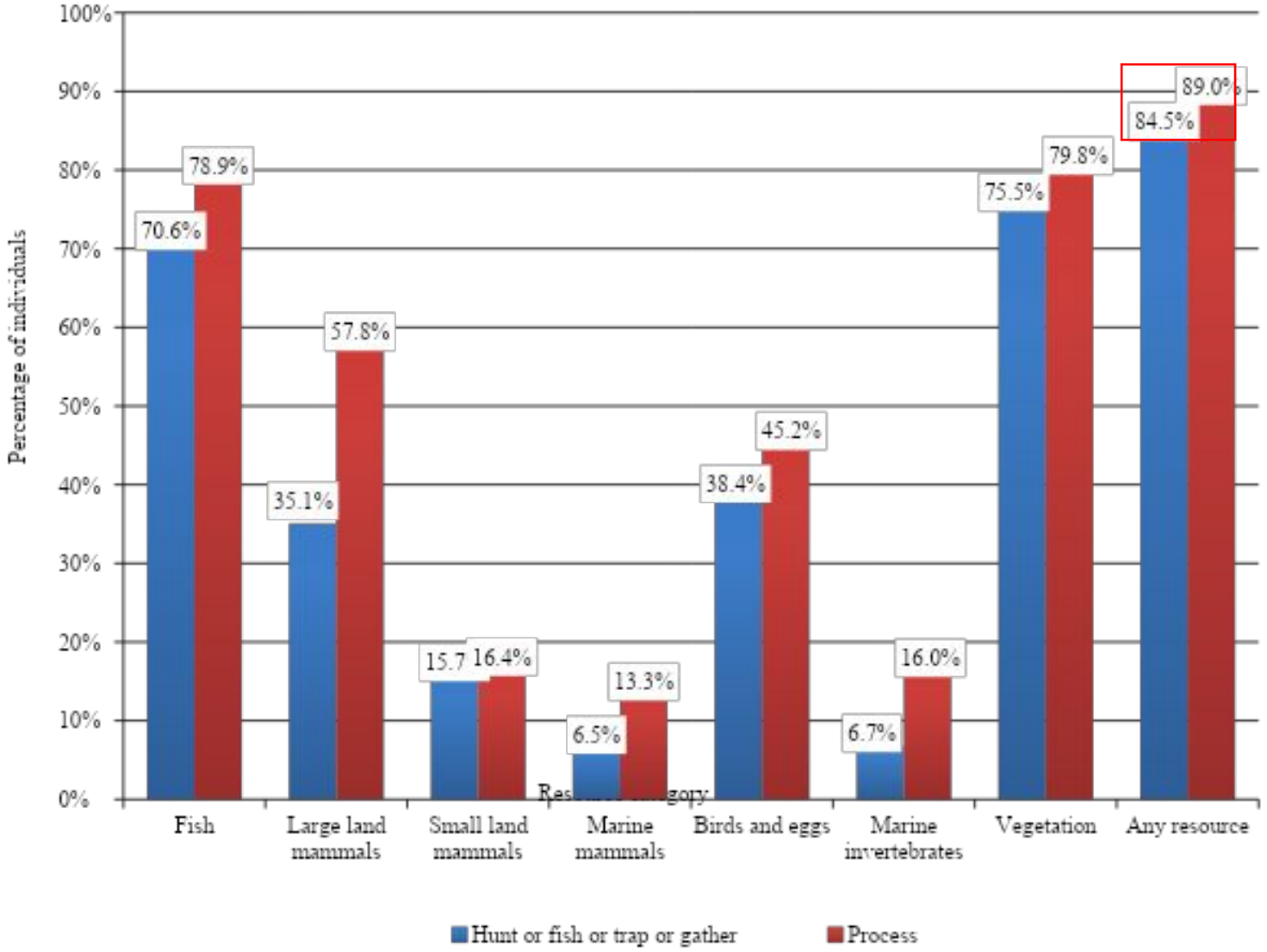
Table n-m.–Birthplaces of population, Dillingham, 2021.

Birthplace	Percentage
Akiachak	0.2%
Aleknagik	0.2%
Allakaket/Alatna	0.4%
Anchorage	2.7%
Utqiagvik (Barrow)	0.4%
Bethel	0.4%
Clarks Point	2.0%
Cordova	0.2%
Dillingham	49.7%
Ekwok	0.4%
Goodnews Bay	0.2%
Iliamna	0.2%
Juneau	0.4%
Kokhanok	1.3%
Koliganek	1.3%
Manokotak	1.3%
Naknek	0.4%
Nelson Lagoon	0.2%
New Stuyahok	1.6%
Nome	0.2%
Palmer	0.7%
Pilot Point	0.2%
Platinum	0.2%
Portage Creek	0.2%
Soldotna	0.2%
South Naknek	0.2%
Togiak	3.6%
Wasilla	0.2%
Nushagak	0.9%
Ekuk	0.9%
Igushik	0.2%
Mulchatna/Tikchik River	0.2%
Douglas	0.2%
Other Alaska	0.2%
Other U.S.	24.7%
Foreign	2.2%
Outside Alaska	0.2%
Missing	0.2%

Household Harvest and Use



Individual Participation



Resource Harvest and Use Characteristics

Table n-m.–Resource harvest and use characteristics, Dillingham, 2021.

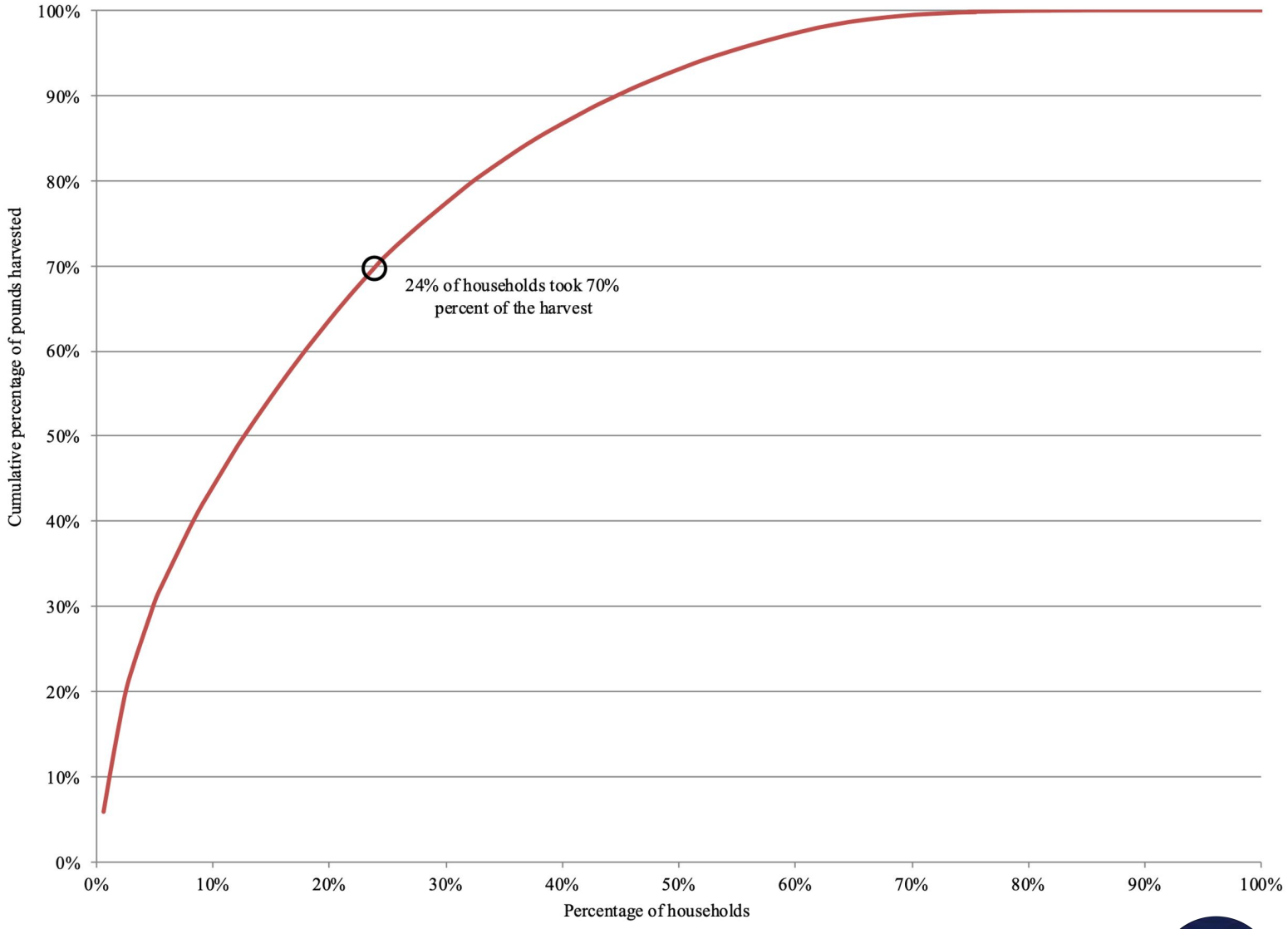
Characteristic	
Mean number of resources used per household	**14.5**
Minimum	0
Maximum	62
95% confidence limit (±)	10.0%
Median	12.0
Mean number of resources attempted to harvest per household	**10.0**
Minimum	0
Maximum	53
95% confidence limit (±)	12.6%
Median	8.0
Mean number of resources harvested per household	**9.6**
Minimum	0
Maximum	51
95% confidence limit (±)	12.9%
Median	8.0
Mean number of resources received per household	**7.4**
Minimum	0
Maximum	42
95% confidence limit (±)	13.1%
Median	6.0
Mean number of resources given away per household	**7.5**
Minimum	0
Maximum	50
95% confidence limit (±)	14.7%
Median	5.0
Household harvest (pounds)	
Minimum	0
Maximum	5,191
Mean	571.3
Median	305.1
Total harvest weight (lb)	381,037.3
Community per capita harvest (lb)	199.0
Percentage using any resource	97.4%
Percentage attempting to harvest any resource	89.0%
Percentage harvesting any resource	87.1%
Percentage receiving any resource	91.0%
Percentage giving away any resource	83.9%
Number of households in sample	155
Number of resources asked about and identified voluntarily by respondents	153

Source ADF&G Division of Subsistence household surveys, 2022.



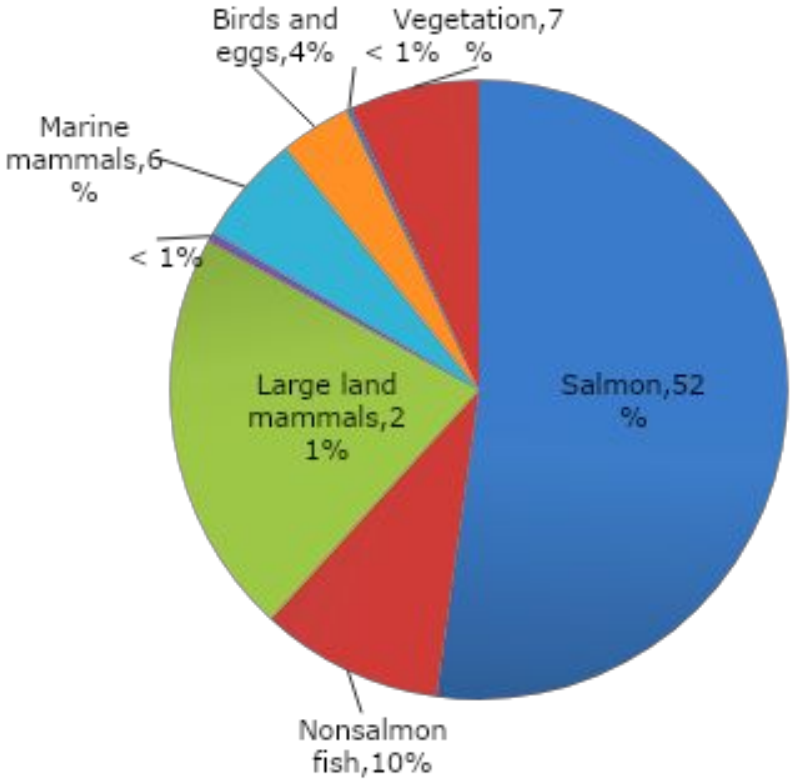
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Specialization



Harvest by Category

Composition of wild resource harvest in pounds usable weight, Dillingham, 2021



	Percentage of households					Harvest weight (lb)			Harvest amount[a]			95% confidence limit (±)
Resource	Use %	Attempt %	Harvest %	Receive %	Give %	Total	Mean per household	Per capita	Total	Unit	Mean per household	harvest
All resources	**97.4**	**89.0**	**87.1**	**91.0**	**83.9**	**381,010.9**	**571.2**	**199.0**	**381,010.9lb**		**571.2**	**20.4**

Top 10 ranked resources used by households

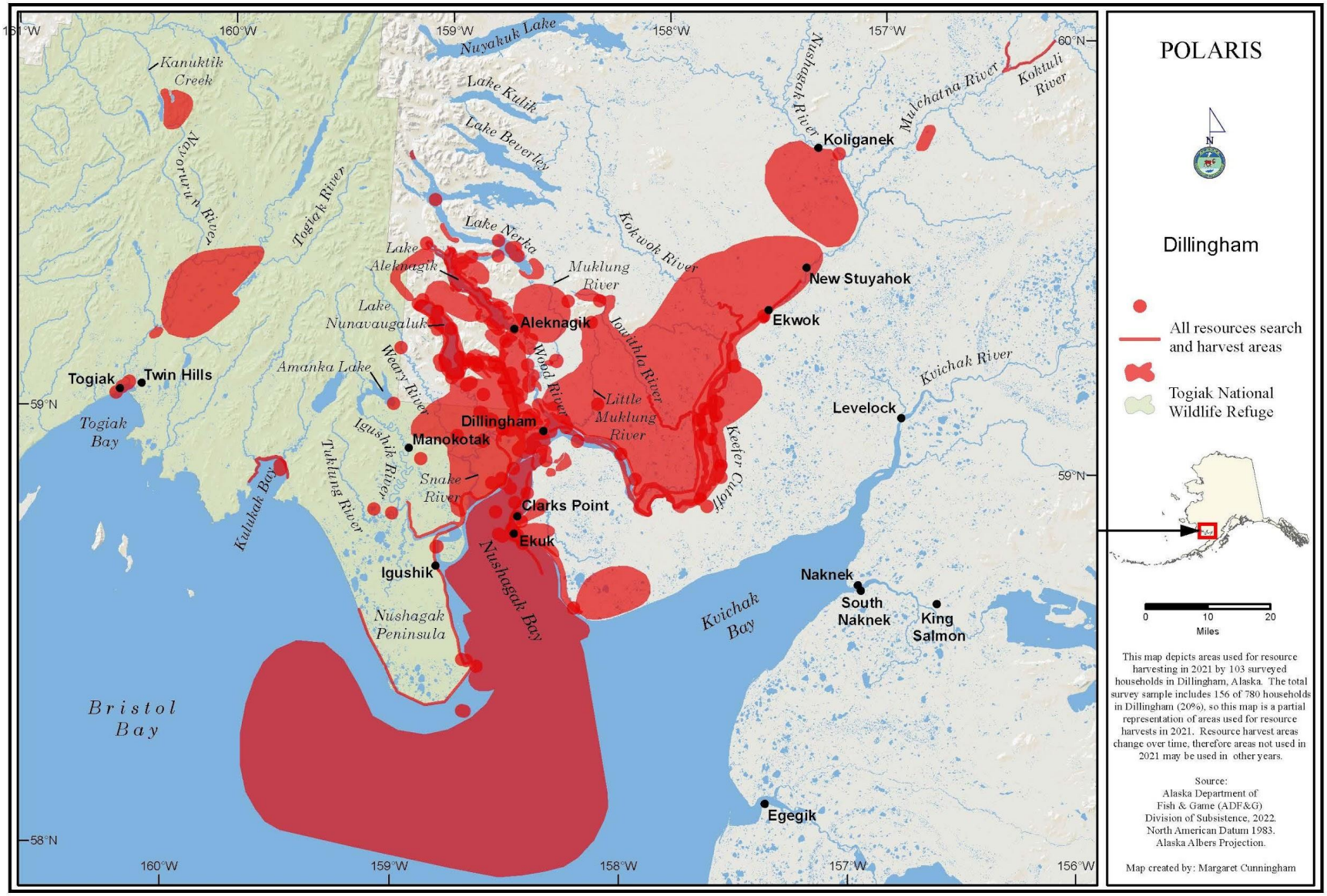
Table n–m. Top 10 ranked resources used by households, Dillingham, 2021.

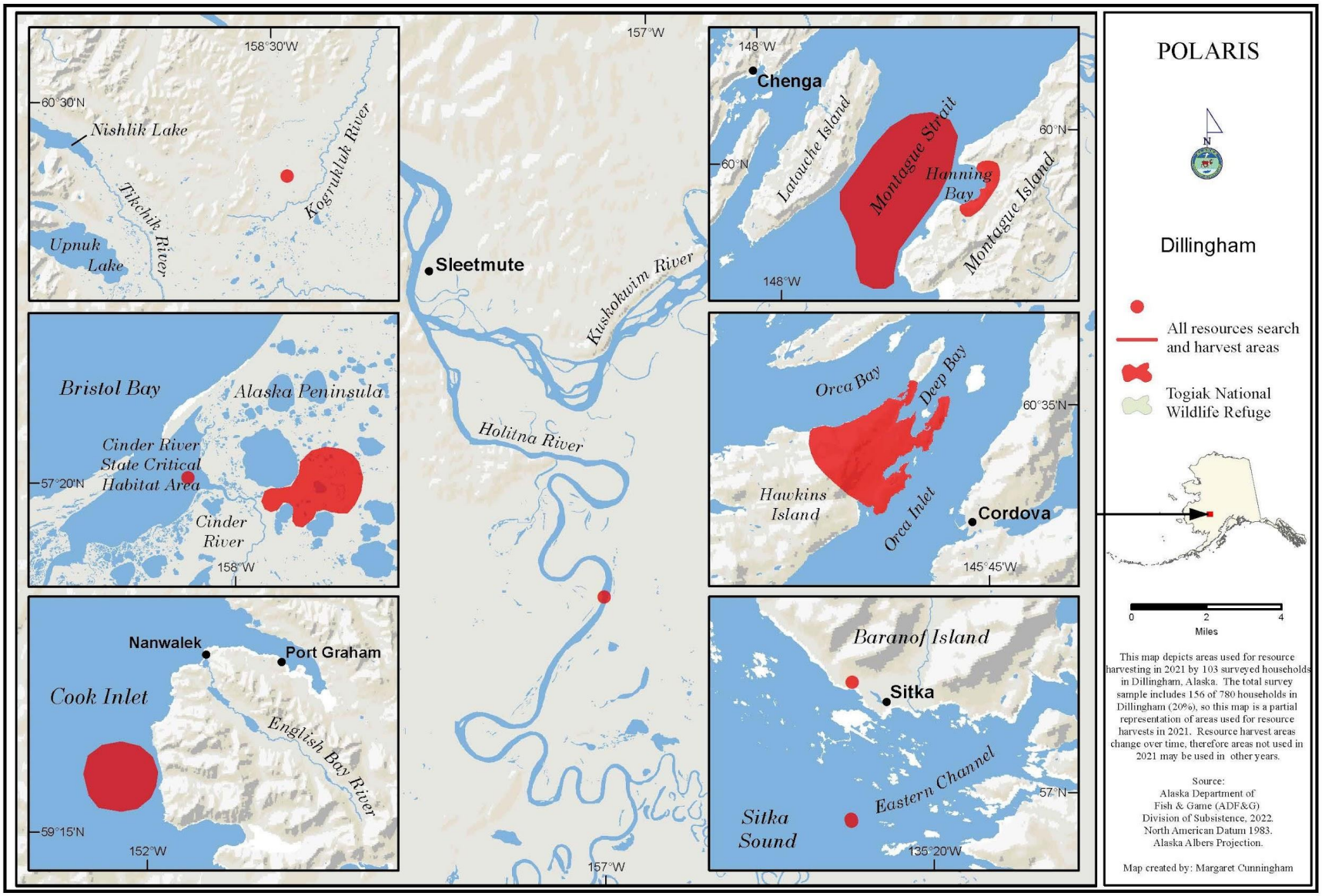
Rank[a]	Resource	Percentage of households using.
1.	Sockeye salmon	88.4%
2.	Moose	79.4%
3.	Chinook salmon	74.8%
4.	Blueberry	69.0%
5.	Salmonberry	61.9%
6.	Coho salmon	58.7%
7.	Rainbow smelts	49.0%
8.	Lowbush cranberry	46.5%
9.	Huckleberry	45.2%
10.	Crowberry	43.9%

Source ADF&G Division of Subsistence household surveys, 2022.

a. Resources used by the same percentage of households share the highest rank value instead of having sequential rank values.

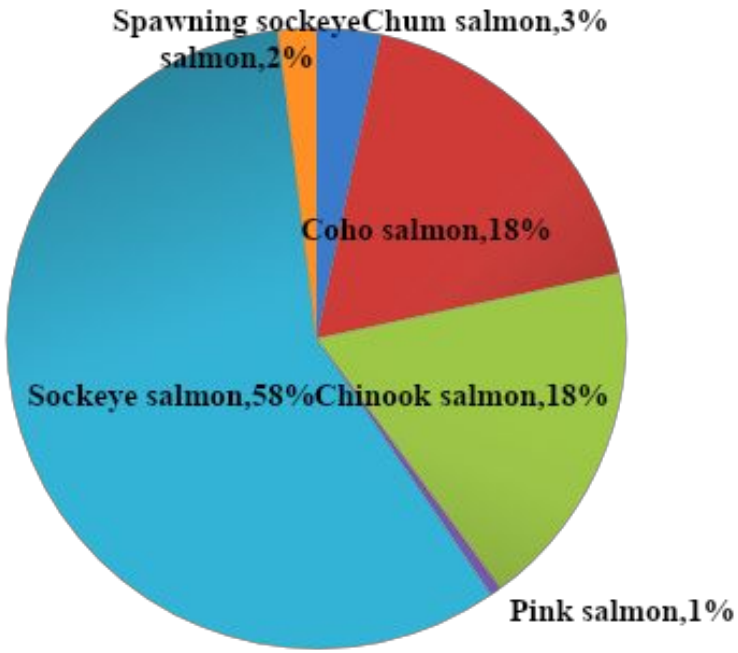



POLARIS
Dillingham
All resources search and harvest areas
Togiak National Wildlife Refuge
0 10 20
Miles
This map depicts areas used for resource harvesting in 2021 by 103 surveyed households in Dillingham, Alaska. The total survey sample includes 156 of 780 households in Dillingham (20%), so this map is a partial representation of areas used for resource harvests in 2021. Resource harvest areas change over time, therefore areas not used in 2021 may be used in other years.
Source:
Alaska Department of Fish & Game (ADF&G) Division of Subsistence, 2022.
North American Datum 1983.
Alaska Albers Projection.
Map created by: Margaret Cunningham
Nuyakuk Lake
Lake Kulik
Lake Beverley
Kanuktik Creek
Nagoruruk River
Togiak River
Lake Nerka
Lake Aleknagik
Muklung River
Lake Nunavaugaluk
Aleknagik
Kokwok River
Nushagak River
Mulchatna River
Koktuli River
Koliganek
New Stuyahok
Ekwok
Kvichak River
Levelock
Amanka Lake
Weary River
Wood River
Iowithla River
Little Muklung River
Keefer Mountain
Togiak
Twin Hills
Togiak Bay
Dillingham
Manokotak
Igushik River
Snake River
Tuklung River
Kulukak Bay
Clarks Point
Ekuk
Igushik
Nushagak Peninsula
Nushagak Bay
Kvichak Bay
Naknek
South Naknek
King Salmon
Egegik
Bristol Bay
60°N
59°N
58°N
161°W
160°W
159°W
158°W
157°W
156°W


POLARIS
Dillingham
All resources search and harvest areas
Togiak National Wildlife Refuge
0
2
4
Miles
This map depicts areas used for resource harvesting in 2021 by 103 surveyed households in Dillingham, Alaska. The total survey sample includes 156 of 780 households in Dillingham (20%), so this map is a partial representation of areas used for resource harvests in 2021. Resource harvest areas change over time, therefore areas not used in 2021 may be used in other years.
Source:
Alaska Department of Fish & Game (ADF&G)
Division of Subsistence, 2022.
North American Datum 1983.
Alaska Albers Projection.
Map created by: Margaret Cunningham
158°30'W
60°30'N
Nishlik Lake
Kogrukluk River
Tikchik River
Upnuk Lake
157°W
Sleetmute
Kuskokwim River
Holitna River
148°W
Chenga
60°N
Latouche Island
Montague Strait
Hanning Bay
Montague Island
148°W
Bristol Bay
Alaska Peninsula
Cinder River State Critical Habitat Area
57°20'N
Cinder River
158°W
Orca Bay
Deep Bay
60°35'N
Hawkins Island
Orca Inlet
Cordova
145°45'W
Nanwalek
Port Graham
Cook Inlet
English Bay River
59°15'N
152°W
Baranof Island
Sitka
Eastern Channel
57°N
Sitka Sound
135°20'W
157°W

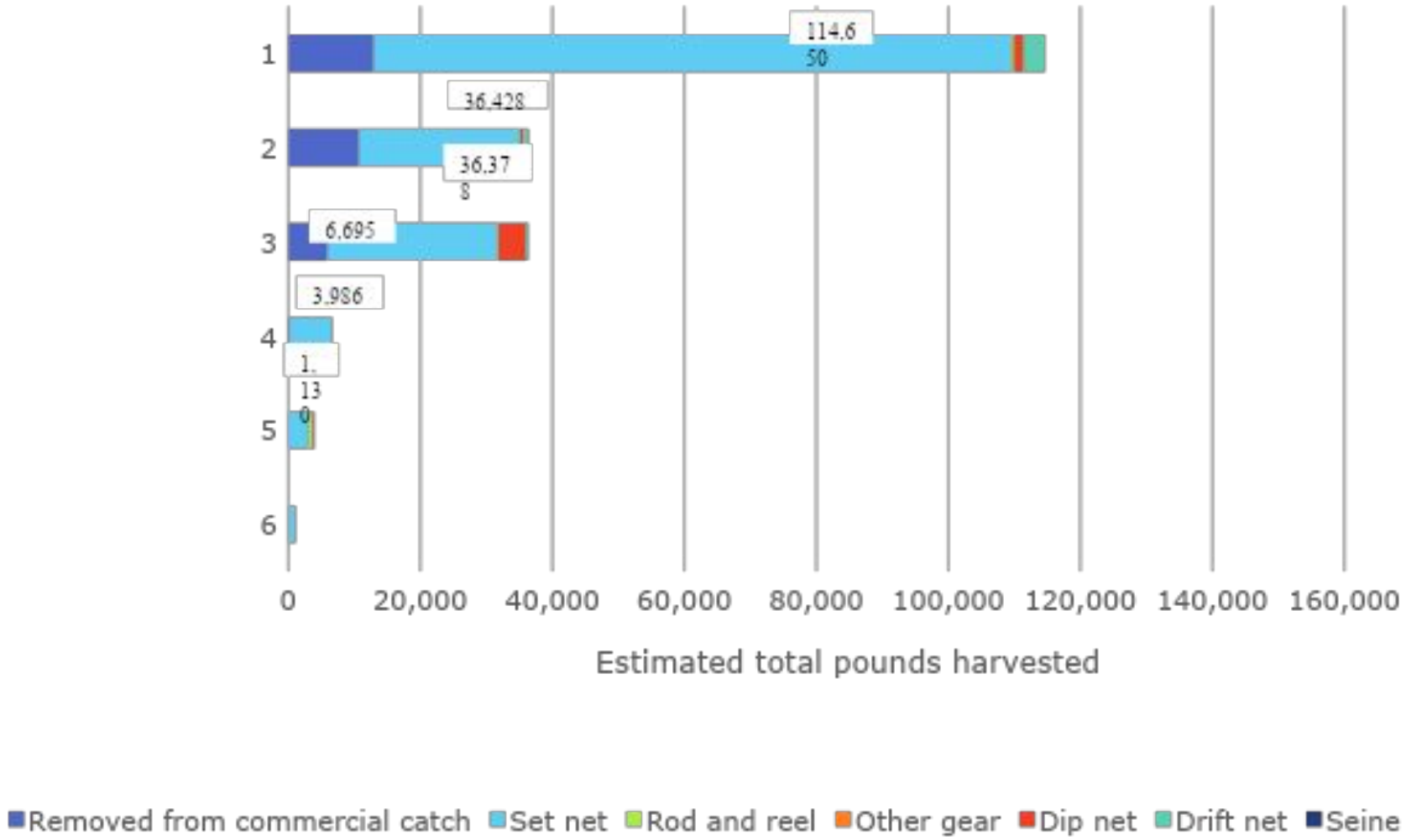
Estimated Salmon Harvest

Composition of salmon harvest in pounds usable weight, Dillingham, 2021



Resource	Percentage of households					Harvest weight (lb)			Harvest amount[a]			95% confidence limit (±)
	Use %	Attempt %	Harvest %	Receive %	Give %	Total	Mean per household	Per capita	Total	Unit	Mean per household	
Salmon	**93.5**	**72.9**	**71.0**	**69.7**	**72.3**	**199,267.0**	**298.8**	**104.1**	**48,768.9**	**ind**	**73.1**	**22.5**
Chum salmon	32.3	27.7	27.7	9.0	13.5	6,694.7	10.0	3.5	1,697.8	ind	2.5	40.9
Coho salmon	58.7	46.5	45.2	31.0	32.3	36,378.0	54.5	19.0	7,796.0	ind	11.7	29.9
Chinook salmon	74.8	60.0	56.1	39.4	50.3	36,427.7	54.6	19.0	5,378.8	ind	8.1	27.2
Pink salmon	7.1	5.8	5.8	1.3	3.2	1,130.1	1.7	0.6	469.1	ind	0.7	73.4
Sockeye salmon	88.4	65.8	65.2	57.4	61.9	114,650.3	171.9	59.9	32,304.1	ind	48.4	26.2
Spawning sockeye salmon	16.8	9.7	9.0	8.4	8.4	3,986.1	6.0	2.1	1,123.1	ind	1.7	63.7
Unspecified salmon	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	ind	0.0	0.0

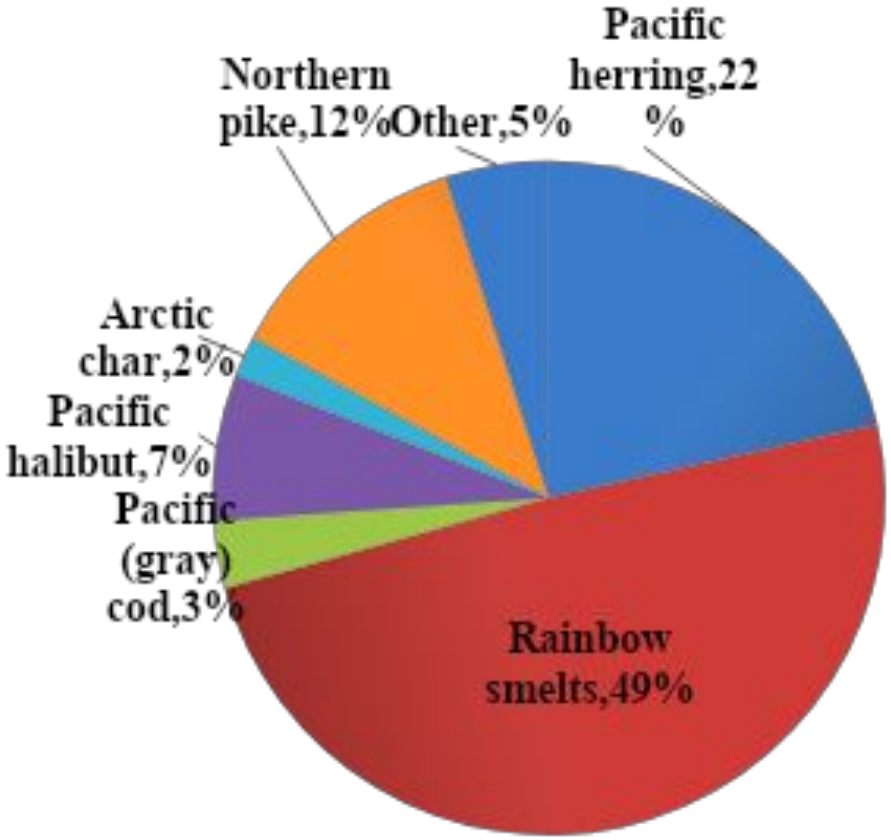
Estimated Salmon Harvest by Gear Type




POLARIS
Dillingham
Salmon search and harvest areas
Togiak National Wildlife Refuge
Road
0 5 10
Miles
This map depicts areas used for resource harvesting in 2021 by 72 surveyed households in Dillingham, Alaska. The total survey sample includes 156 of 780 households in Dillingham (20%), so this map is a partial representation of areas used for resource harvests in 2021. Resource harvest areas change over time, therefore areas not used in 2021 may be used in other years.
Source:
Alaska Department of Fish & Game (ADF&G)
Division of Subsistence, 2022.
North American Datum 1983.
Alaska Albers Projection.
Map created by: Margaret Cunningham
Togiak
Twin Hills
Togiak River
Togiak Bay
160°20'W
59°5'N
Lake Nerka
Lake Aleknagik
Lake Nunavaugaluk
Aleknagik
Aleknagik Lake Road
Weary River
Snake River
Wood River
Muklung River
Little Mulklung River
Iowithla River
Kokwok River
Koklong Creek
Ekwok
Nushagak River
Keefer Cutoff
Dillingham
Manokotak
Ualik Lake
Amanka Lake
59°N
159°W
158°W
Clarks Point
Ekuk
Igushik
Igushik River
Nushagak Bay
Nushagak Peninsula
Bristol Bay
Cinder River
Alaska Peninsula
57°20'N

Nonsalmon Fish Harvest

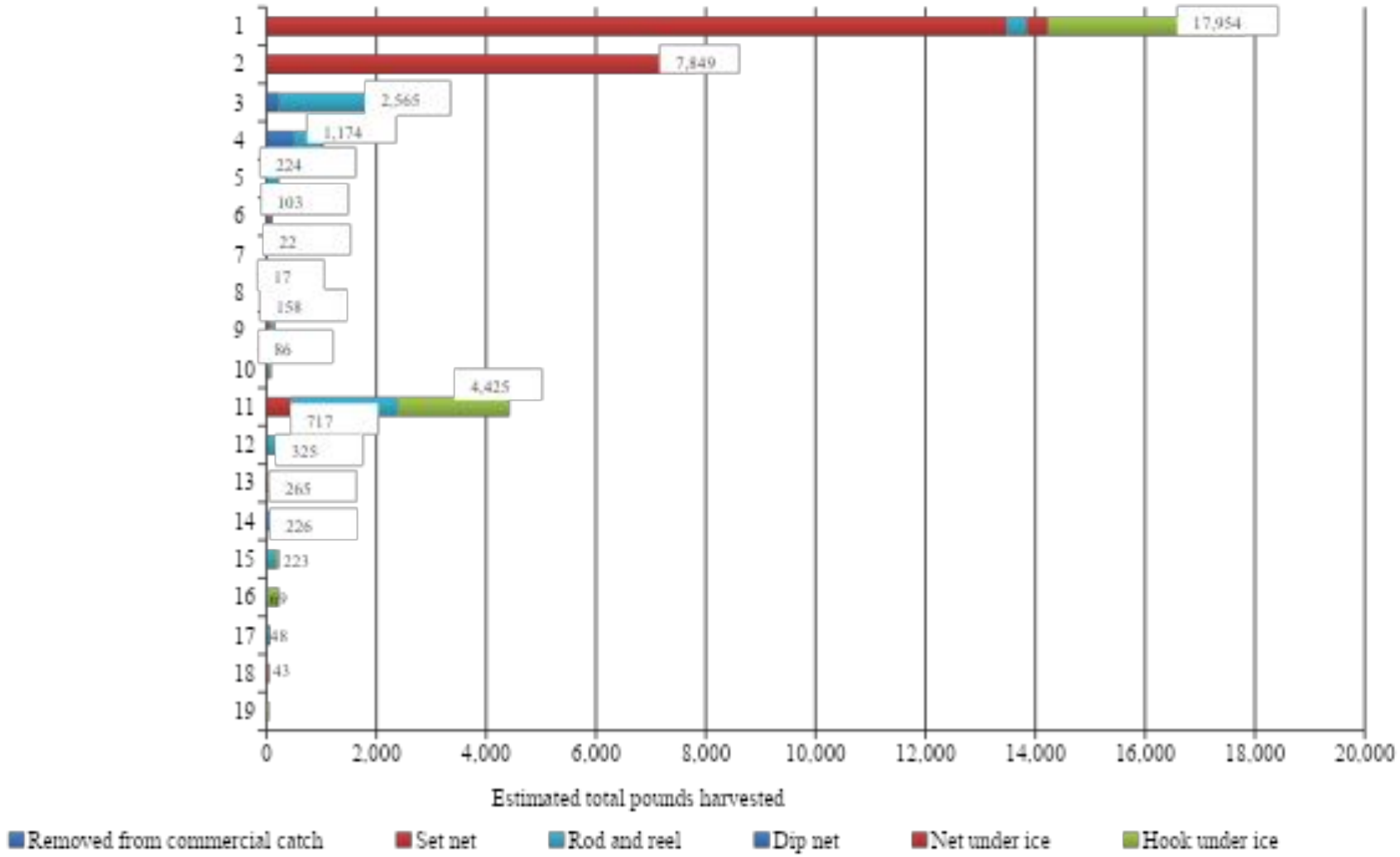
Composition of nonsalmon fish harvest in pounds usable weight, Dillingham, 2021

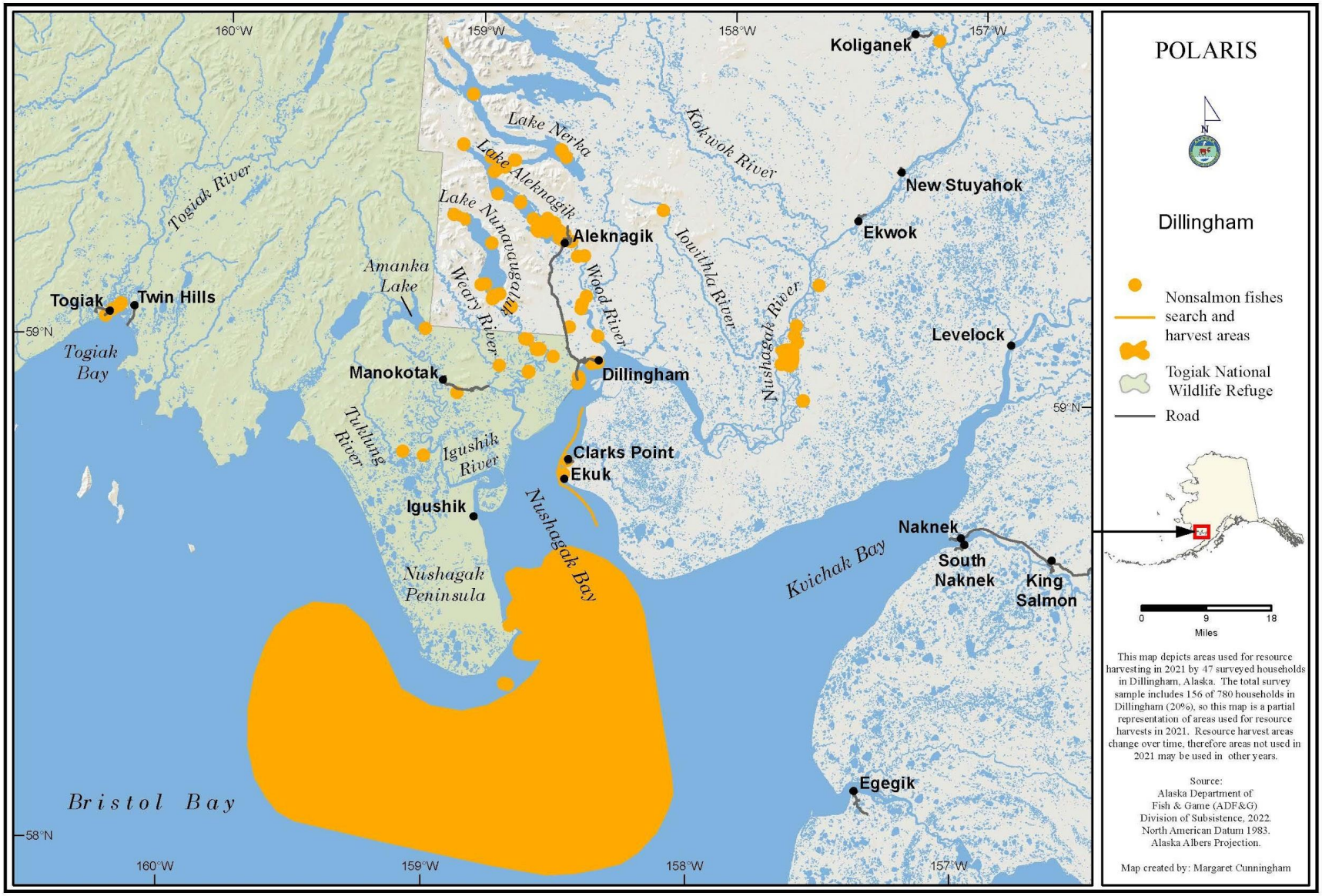


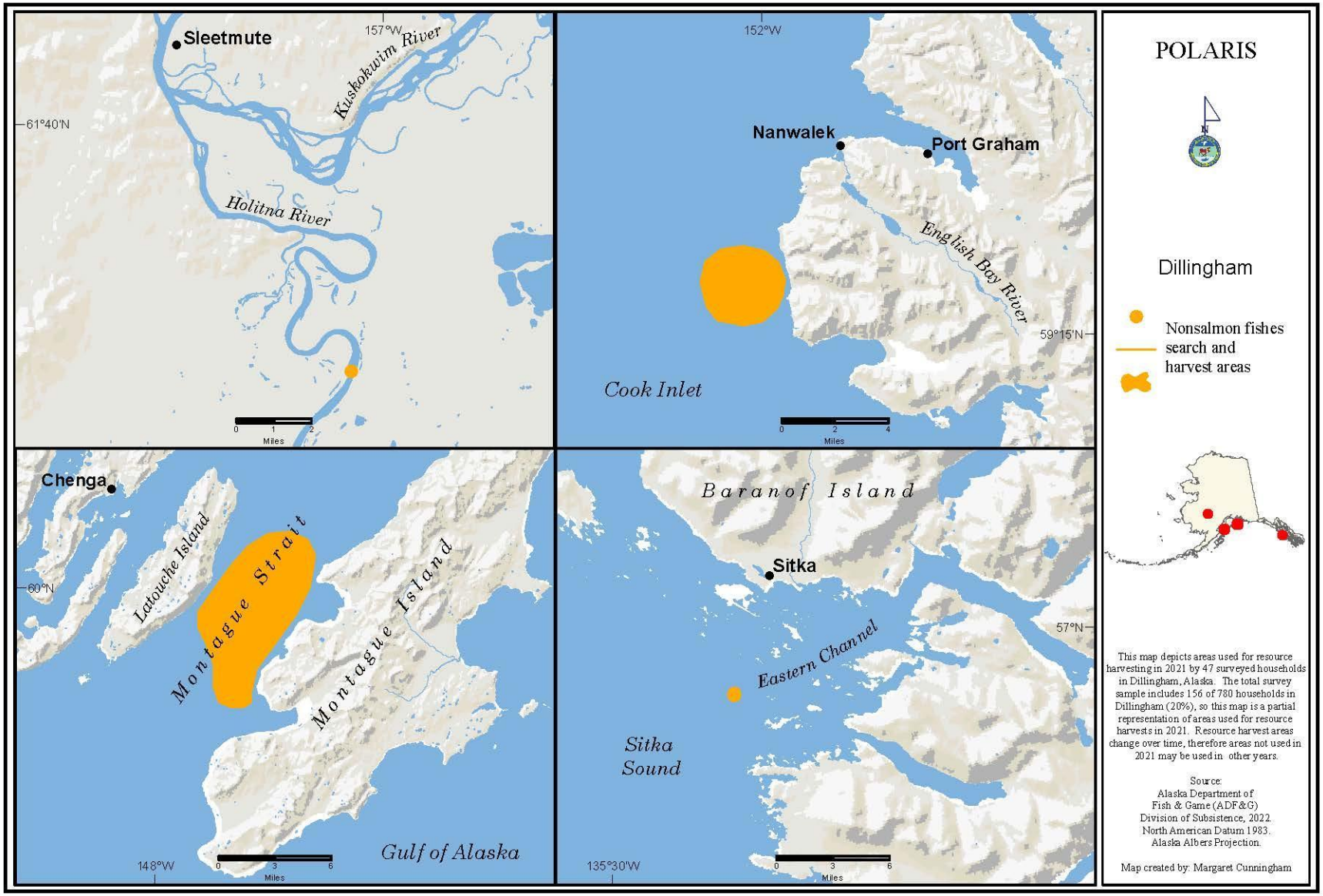
Estimated Nonsalmon Fish Harvest

Resource	Percentage of households					Harvest weight (lb)			Harvest amount[a]			95% confidence limit (±)
	Use %	Attempt %	Harvest %	Receive %	Give %	Total	Mean per household	Per capita	Total	Unit	Mean per household	
Nonsalmon fish	**74.2**	**45.8**	**44.5**	**56.8**	**48.4**	**36,492.7**	**54.7**	**19.1**	**36,492.7**	**lb**	**54.7**	**52.0**
Pacific herring	9.7	1.9	1.9	9.0	3.9	7,849.1	11.8	4.1	1,308.2	gal	2.0	171.4
Pacific herring spawn on kelp	26.5	0.6	0.6	26.5	11.6	0.0	0.0	0.0	0.0	gal	0.0	0.0
Pacific herring roe on hemlock	1.9	0.0	0.0	1.9	1.3	0.0	0.0	0.0	0.0	gal	0.0	0.0
Rainbow smelts	49.0	29.7	28.4	31.6	27.1	17,953.5	26.9	9.4	2,992.2	gal	4.5	69.8
Pacific (gray) cod	12.9	6.5	6.5	8.4	6.5	1,173.9	1.8	0.6	366.9	ind	0.6	76.3
Starry flounder	1.9	1.9	1.9	0.0	0.0	103.3	0.2	0.1	34.4	ind	0.1	100.8
Lingcod	0.6	0.6	0.6	0.0	0.0	17.2	0.0	0.0	4.3	ind	0.0	173.1
Pacific halibut	28.4	7.1	5.8	24.5	12.9	2,564.7	3.8	1.3	2,564.7	lb	3.8	61.9
Unspecified rockfishes	2.6	2.6	2.6	1.9	1.9	223.8	0.3	0.1	111.9	ind	0.2	92.5
Sablefish (black cod)	0.6	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.0	ind	0.0	0.0
Yellowfin sole	0.6	0.6	0.6	0.0	0.0	21.5	0.0	0.0	21.5	ind	0.0	173.1
Burbot	1.3	0.6	0.6	0.6	1.3	43.0	0.1	0.0	43.0	ind	0.1	173.1
Arctic char	18.7	15.5	15.5	4.5	7.1	716.9	1.1	0.4	512.1	ind	0.8	47.5
Dolly Varden, freshwater	3.2	2.6	2.6	0.6	1.9	222.9	0.3	0.1	159.2	ind	0.2	93.4
Dolly Varden, saltwater	5.8	4.5	4.5	1.3	0.6	265.1	0.4	0.1	189.3	ind	0.3	64.1
Dolly Varden, Togiak trout	7.1	0.6	0.6	7.1	3.9	48.2	0.1	0.0	34.4	ind	0.1	173.1
Lake trout	3.2	2.6	2.6	0.6	1.9	325.3	0.5	0.2	120.5	ind	0.2	111.4
Arctic grayling	4.5	4.5	3.9	0.6	0.6	69.3	0.1	0.0	99.0	ind	0.1	74.6
Northern pike	29.7	20.6	20.0	14.8	16.1	4,424.8	6.6	2.3	1,580.3	ind	2.4	43.7
Sheefish	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	ind	0.0	0.0
Rainbow trout	12.3	10.3	9.0	3.9	3.9	225.9	0.3	0.1	322.7	ind	0.5	57.8
Humpback whitefish	8.4	2.6	2.6	7.1	4.5	158.1	0.2	0.1	90.4	ind	0.1	95.8
Round whitefish	5.8	2.6	2.6	3.2	3.2	86.1	0.1	0.0	86.1	ind	0.1	88.3
Unspecified whitefishes	3.9	0.0	0.0	3.9	1.9	0.0	0.0	0.0	0.0	ind	0.0	0.0

Estimated Nonsalmon Fish Harvest by Gear Type

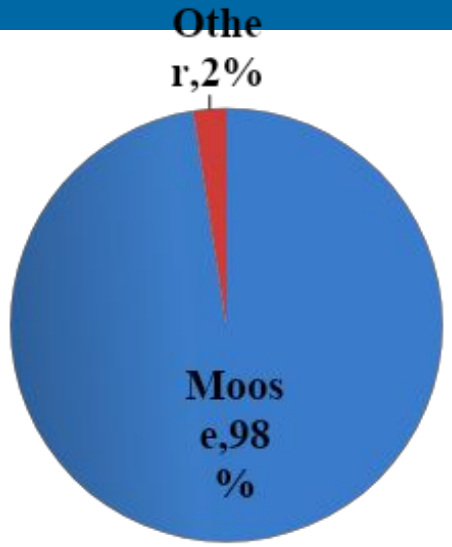



POLARIS
Dillingham
Nonsalmon fishes search and harvest areas
Togiak National Wildlife Refuge
Road
0
9
18
Miles
This map depicts areas used for resource harvesting in 2021 by 47 surveyed households in Dillingham, Alaska. The total survey sample includes 156 of 780 households in Dillingham (20%), so this map is a partial representation of areas used for resource harvests in 2021. Resource harvest areas change over time, therefore areas not used in 2021 may be used in other years.
Source:
Alaska Department of Fish & Game (ADF&G)
Division of Subsistence, 2022.
North American Datum 1983.
Alaska Albers Projection.
Map created by: Margaret Cunningham
160°W
159°W
158°W
157°W
59°N
58°N
Koliganek
New Stuyahok
Ekwok
Levelock
Naknek
South Naknek
King Salmon
Egegik
Aleknagik
Dillingham
Manokotak
Clarks Point
Ekuk
Igushik
Togiak
Twin Hills
Lake Nerka
Lake Aleknagik
Lake Nunavaugaluk
Kokwok River
Togiak River
Amanka Lake
Weary River
Wood River
Igushik River
Tuklung River
Nushagak River
Nushagak Bay
Nushagak Peninsula
Togiak Bay
Kvichak Bay
Bristol Bay


Sleetmute
157°W
Kuskokwim River
61°40'N
Holitna River
0 1 2
Miles
152°W
Nanwalek
Port Graham
English Bay River
59°15'N
Cook Inlet
0 2 4
Miles
Chenga
Latouche Island
Montague Strait
Montague Island
60°N
148°W
0 3 6
Miles
Gulf of Alaska
Baranof Island
Sitka
57°N
Eastern Channel
Sitka Sound
135°30'W
0 3 6
Miles
POLARIS
Dillingham
Nonsalmon fishes search and harvest areas
This map depicts areas used for resource harvesting in 2021 by 47 surveyed households in Dillingham, Alaska. The total survey sample includes 156 of 780 households in Dillingham (20%), so this map is a partial representation of areas used for resource harvests in 2021. Resource harvest areas change over time, therefore areas not used in 2021 may be used in other years.
Source:
Alaska Department of Fish & Game (ADF&G)
Division of Subsistence, 2022.
North American Datum 1983.
Alaska Albers Projection.
Map created by: Margaret Cunningham

Large Land Mammal Harvest

Composition of harvest in pounds usable weight, Dillingham, 2021



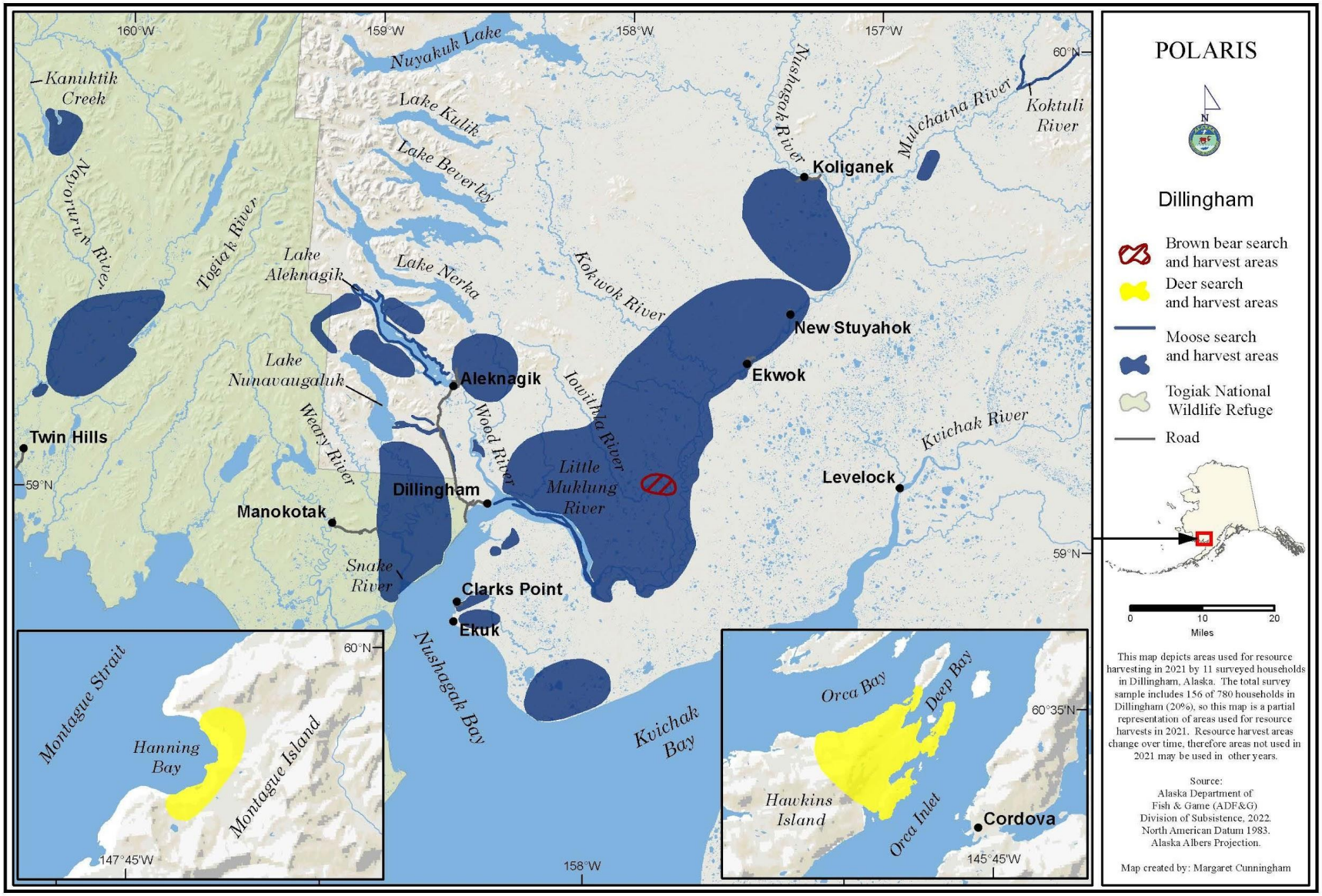
Resource	Percentage of households					Harvest weight (lb)			Harvest amount[a]			95% confidence limit (±) harvest
	Use %	Attempt %	Harvest %	Receive %	Give %	Total	Mean per household	Per capita	Total	Unit	Mean per household	
Large land mammals	**82.6**	**47.1**	**21.9**	**73.5**	**51.0**	**81,161.6**	**121.7**	**42.4**	**190.6**	**ind**	**0.3**	**28.6**
Bison	1.3	0.6	0.6	0.6	0.6	450.0	0.7	0.2	1.0	ind	0.0	744.8
Black bear	1.3	0.0	0.0	1.3	1.3	0.0	0.0	0.0	0.0	ind	0.0	0.0
Brown bear	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	4.3	ind	0.0	173.1
Caribou	12.3	0.0	0.0	12.3	5.2	0.0	0.0	0.0	0.0	ind	0.0	0.0
Deer	5.2	3.2	2.6	3.2	3.2	929.5	1.4	0.5	21.5	ind	0.0	90.8
Mountain goat	1.9	1.9	1.9	0.0	1.9	624.0	0.9	0.3	17.2	ind	0.0	122.0
Moose	79.4	45.2	20.0	69.7	48.4	79,158.1	118.7	41.3	146.6	ind	0.2	28.8

Large Land Mammal Harvest Timing

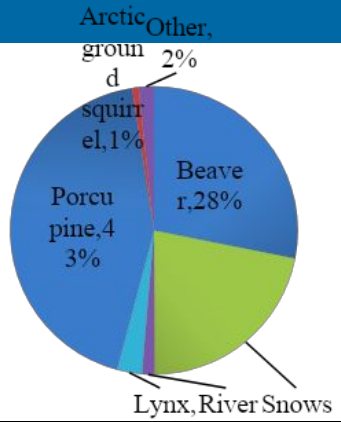
Table n-m.–Estimated large land mammal harvests by month and sex, Dillingham, 2021.

Resource	Estimated harvest by month													Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unk	
All large land mammals	**8.6**	**8.6**	**1.0**	**0.0**	**0.0**	**0.0**	**0.0**	**56.2**	**99.0**	**0.0**	**12.9**	**4.3**	**0.0**	**190.6**
Bison	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.0**
Black bear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Brown bear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	**4.3**
Caribou	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Caribou, male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Caribou, female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Caribou, unknown sex	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Deer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0	12.9	0.0	0.0	**21.5**
Mountain goat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	12.9	0.0	0.0	0.0	0.0	**17.2**
Moose	8.6	8.6	0.0	0.0	0.0	0.0	0.0	43.3	81.8	0.0	0.0	4.3	0.0	**146.6**
Moose, male	8.6	4.3	0.0	0.0	0.0	0.0	0.0	43.3	81.8	0.0	0.0	4.3	0.0	**142.3**
Moose, female	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**4.3**
Moose, unknown sex	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**

Source ADF&G Division of Subsistence household surveys, 2022.


POLARIS
Dillingham
Brown bear search and harvest areas
Deer search and harvest areas
Moose search and harvest areas
Togiak National Wildlife Refuge
Road
0
10
20
Miles
This map depicts areas used for resource harvesting in 2021 by 11 surveyed households in Dillingham, Alaska. The total survey sample includes 156 of 780 households in Dillingham (20%), so this map is a partial representation of areas used for resource harvests in 2021. Resource harvest areas change over time, therefore areas not used in 2021 may be used in other years.
Source:
Alaska Department of Fish & Game (ADF&G) Division of Subsistence, 2022.
North American Datum 1983.
Alaska Albers Projection.
Map created by: Margaret Cunningham
160°W
159°W
158°W
157°W
60°N
59°N
Nuyakuk Lake
Kanuktik Creek
Lake Kulik
Lake Beverley
Nushagak River
Mulchatna River
Koktuli River
Koliganek
Nak'ruruin River
Togiak River
Lake Aleknagik
Lake Nerka
Kokwok River
New Stuyahok
Ekwok
Lake Nunavaugaluk
Aleknagik
Iowithla River
Weary River
Wood River
Kvichak River
Twin Hills
Little Muklung River
Levelock
Dillingham
Manokotak
Snake River
Clarks Point
Ekuk
Nushagak Bay
Kvichak Bay
Montague Strait
Hanning Bay
Montague Island
147°45'W
Orca Bay
Deep Bay
60°35'N
Hawkins Island
Orca Inlet
Cordova
145°45'W

Estimated Small Land Mammal Harvest



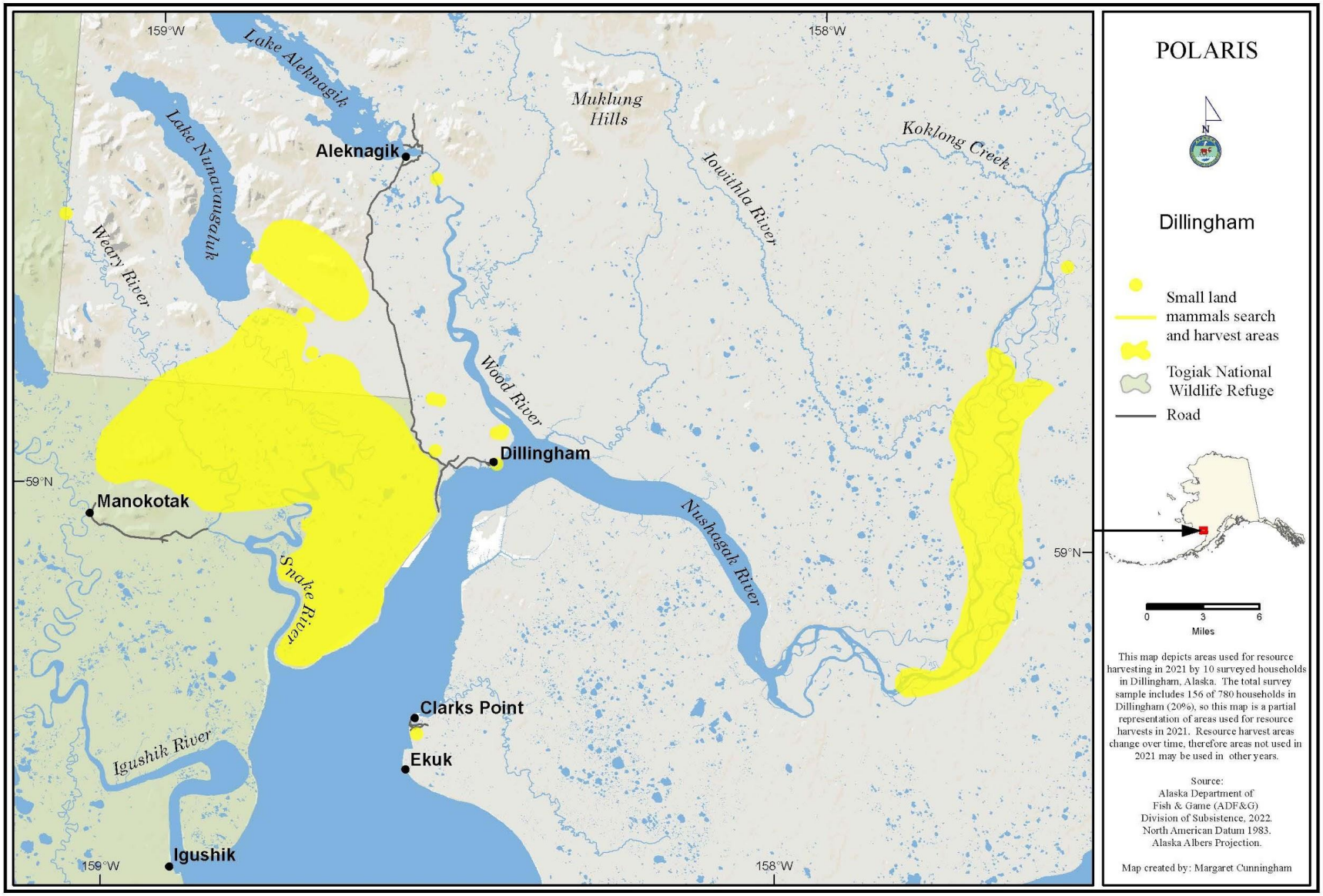
Resource	Percentage of households					Harvest weight (lb)			Harvest amount[a]			95% confidence limit (±)
	Use %	Attempt %	Harvest %	Receive %	Give %	Total	Mean per household	Per capita	Total	Unit	Mean per household	
Small land mammals	**25.2**	**18.1**	**16.8**	**11.0**	**8.4**	**1,835.5**	**2.8**	**1.0**	**951.5**	**ind**	**1.4**	**75.4**
Beaver	5.8	3.2	3.2	2.6	2.6	516.4	0.8	0.3	77.5	ind	0.1	128.7
Coyote	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	12.9	ind	0.0	128.7
Red fox, cross phase	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ind	0.0	0.0
Red fox, red phase	5.2	5.2	4.5	0.6	0.0	0.0	0.0	0.0	146.3	ind	0.2	65.5
Alaska hare	0.6	0.6	0.6	0.0	0.6	6.5	0.0	0.0	4.3	ind	0.0	173.1
Snowshoe hare	7.7	6.5	6.5	1.9	1.3	400.2	0.6	0.2	301.2	ind	0.5	78.9
Unspecified hares	0.6	0.6	0.6	0.0	0.0	23.0	0.0	0.0	4.3	ind	0.0	173.1
River otter	2.6	2.6	2.6	0.0	0.6	25.8	0.0	0.0	38.7	ind	0.1	173.1
Lynx	4.5	3.9	3.9	1.3	1.3	51.6	0.1	0.0	51.8	ind	0.1	129.1
Martens	3.2	3.2	3.2	0.0	0.0	0.0	0.0	0.0	103.3	ind	0.2	89.9
Mink	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	12.9	ind	0.0	128.7
Muskrat	0.6	0.6	0.6	0.0	0.6	0.0	0.0	0.0	4.3	ind	0.0	173.1
Porcupine	16.1	10.3	9.7	7.7	6.5	796.9	1.2	0.4	129.4	ind	0.2	84.7
Arctic ground squirrel	0.6	0.6	0.6	0.0	0.0	12.9	0.0	0.0	25.8	ind	0.0	173.1
Red squirrel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ind	0.0	0.0
Weasels	1.3	1.3	1.3	0.0	0.0	2.2	0.0	0.0	8.6	ind	0.0	173.1
Gray wolf	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	4.3	ind	0.0	173.1
Wolverine	1.9	1.9	1.9	0.0	0.6	0.0	0.0	0.0	25.8	ind	0.0	122.0

Estimated Small Land Mammal Timing

Table n-m.–Estimated small land mammal/furbearer harvests by month, Dillingham, 2021.

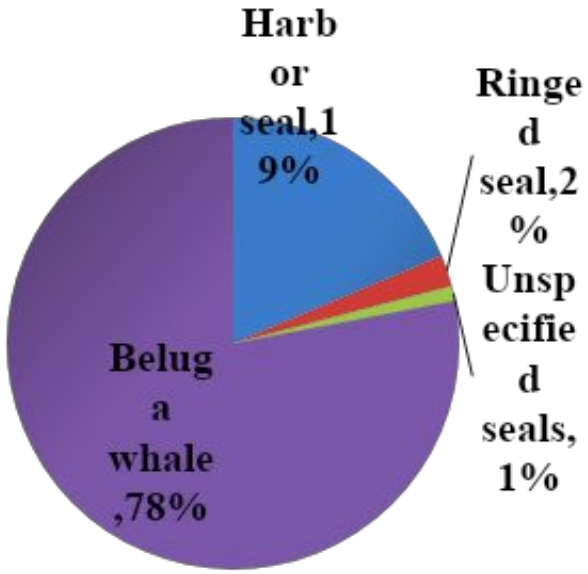
Resource	Estimated harvest by month													Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unk	
All small land mammals	**150.6**	**210.9**	**77.5**	**0.0**	**0.0**	**4.3**	**4.3**	**47.3**	**34.4**	**8.6**	**43.0**	**163.5**	**207.0**	**951.5**
Beaver	0.0	17.2	0.0	0.0	0.0	0.0	0.0	4.3	0.0	8.6	12.9	0.0	34.4	**77.5**
Coyote	0.0	4.3	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	**12.9**
Red fox, cross phase	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Red fox, red phase	43.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2	43.0	21.5	**146.3**
Alaska hare	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	**4.3**
Snowshoe hare	43.0	94.7	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.8	38.7	**301.2**
Unspecified hares	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	**4.3**
River otter	8.6	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	8.6	0.0	**38.7**
Lynx	17.2	4.3	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	**51.8**
Martens	30.1	30.1	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.8	**103.3**
Mink	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	0.0	**12.9**
Muskrat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	**4.3**
Porcupine	4.3	12.9	8.6	0.0	0.0	4.3	4.3	12.9	34.4	0.0	0.0	4.3	43.3	**129.4**
Arctic ground squirrel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.8	0.0	0.0	0.0	0.0	0.0	**25.8**
Red squirrel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Weasels	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	**8.6**
Gray wolf	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**4.3**
Wolverine	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2	**25.8**

Source ADF&G Division of Subsistence household surveys, 2022.


POLARIS
Dillingham
Small land mammals search and harvest areas
Togiak National Wildlife Refuge
Road
0 3 6
Miles
This map depicts areas used for resource harvesting in 2021 by 10 surveyed households in Dillingham, Alaska. The total survey sample includes 156 of 780 households in Dillingham (20%), so this map is a partial representation of areas used for resource harvests in 2021. Resource harvest areas change over time, therefore areas not used in 2021 may be used in other years.
Source:
Alaska Department of Fish & Game (ADF&G)
Division of Subsistence, 2022.
North American Datum 1983.
Alaska Albers Projection.
Map created by: Margaret Cunningham
159°W
158°W
59°N
Lake Aleknagik
Lake Nunavaugaluk
Weary River
Muklung Hills
Koklong Creek
Iowithla River
Wood River
Nushagak River
Snake River
Igushik River
Aleknagik
Dillingham
Manokotak
Clarks Point
Ekuk
Igushik

Marine Mammal Harvest

Composition of harvest in pounds usable weight, Dillingham, 2021



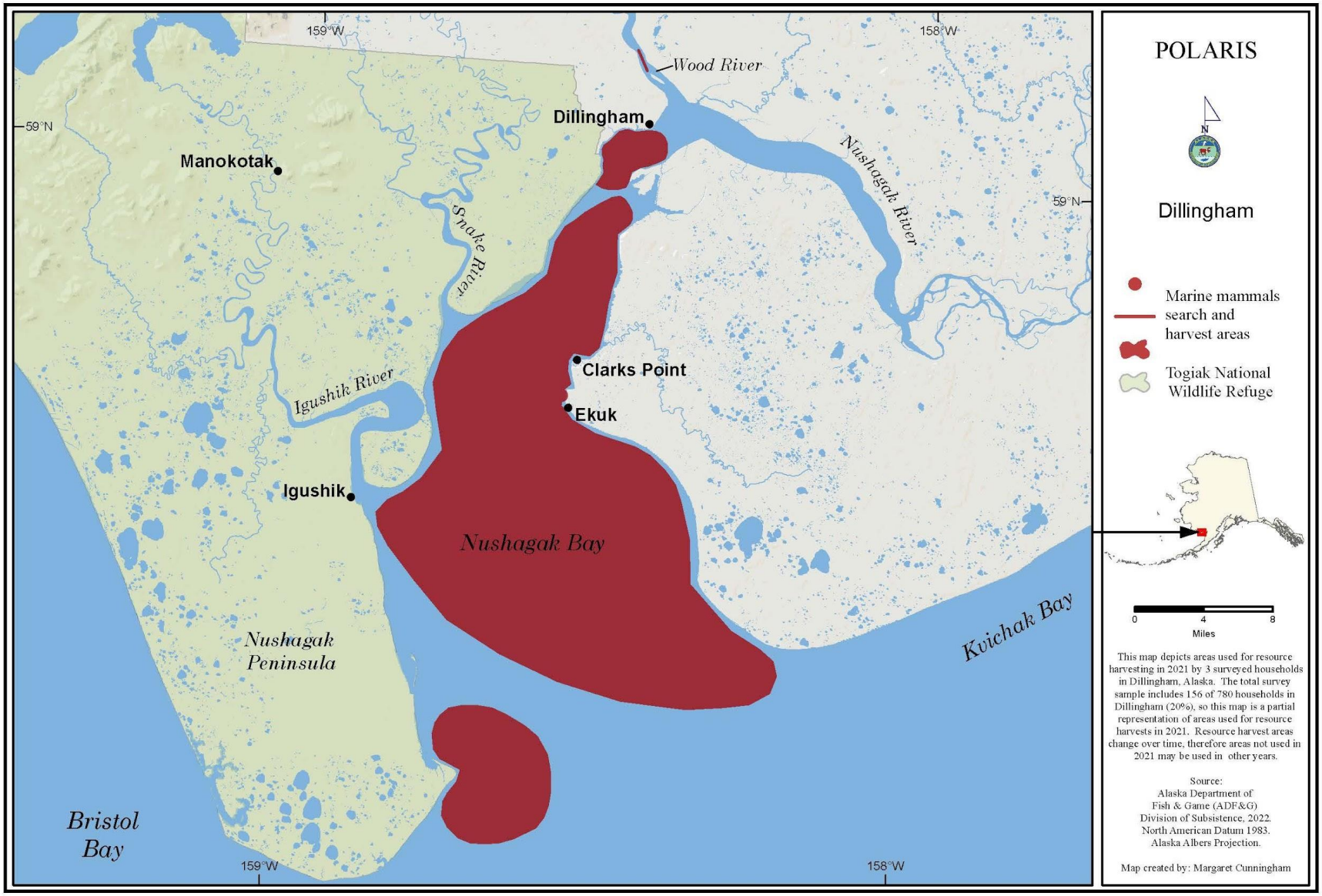
Resource	Percentage of households					Harvest weight (lb)			Harvest amount[a]			95% confidence limit (±)
	Use %	Attempt %	Harvest %	Receive %	Give %	Total	Mean per household	Per capita	Total	Unit	Mean per household	
Marine mammals	**33.5**	**10.3**	**7.7**	**31.0**	**17.4**	**21,955.1**	**32.9**	**11.5**	**103.3**	**ind**	**0.2**	**64.5**
Bearded seal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ind	0.0	0.0
Harbor seal	16.1	7.1	5.2	12.9	8.4	4,096.7	6.1	2.1	73.2	ind	0.1	73.0
Ringed seal	1.9	1.3	1.3	1.3	1.9	490.6	0.7	0.3	8.6	ind	0.0	122.0
Unspecified seals	13.5	1.3	0.6	13.5	5.8	241.0	0.4	0.1	4.3	ind	0.0	173.1
Steller sea lion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ind	0.0	0.0
Walrus	1.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	ind	0.0	0.0
Beluga whale	18.1	4.5	2.6	17.4	10.3	17,126.8	25.7	8.9	17.2	ind	0.0	74.5
Bowhead whale	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	ind	0.0	0.0

Marine Mammal Harvest Timing

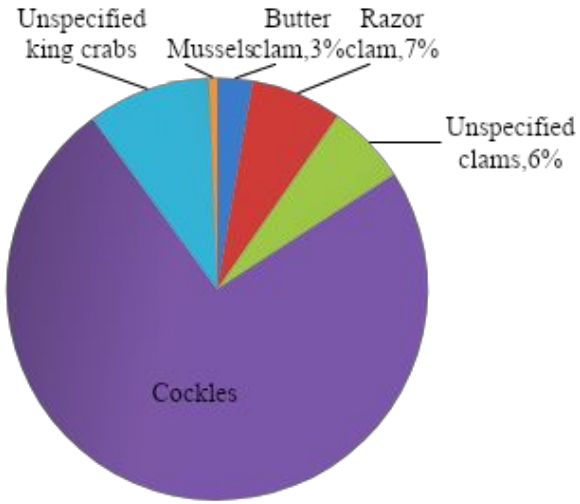
Table n-m.–Estimated marine mammal harvest by month and sex, Dillingham, 2021.

Resource	Estimated harvest by month													Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unk	
All marine mammals	**0.0**	**0.0**	**0.0**	**55.9**	**34.4**	**0.0**	**0.0**	**0.0**	**4.3**	**0.0**	**0.0**	**0.0**	**8.6**	**103.3**
Bearded seal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Bearded seal, male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Bearded seal, female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Bearded seal, unknown sex	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Harbor seal	0.0	0.0	0.0	51.6	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**73.2**
Harbor seal, male	0.0	0.0	0.0	21.5	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**25.8**
Harbor seal, female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Harbor seal, unknown sex	0.0	0.0	0.0	30.1	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**47.3**
Ringed seal	0.0	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**8.6**
Ringed seal, male	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**4.3**
Ringed seal, female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Ringed seal, unknown sex	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**4.3**
Unspecified seals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	**4.3**
Steller sea lion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Walrus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Whales	0.0	0.0	0.0	4.3	4.3	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	**17.2**
Beluga whale	0.0	0.0	0.0	4.3	4.3	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	**17.2**
Bowhead whale	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**

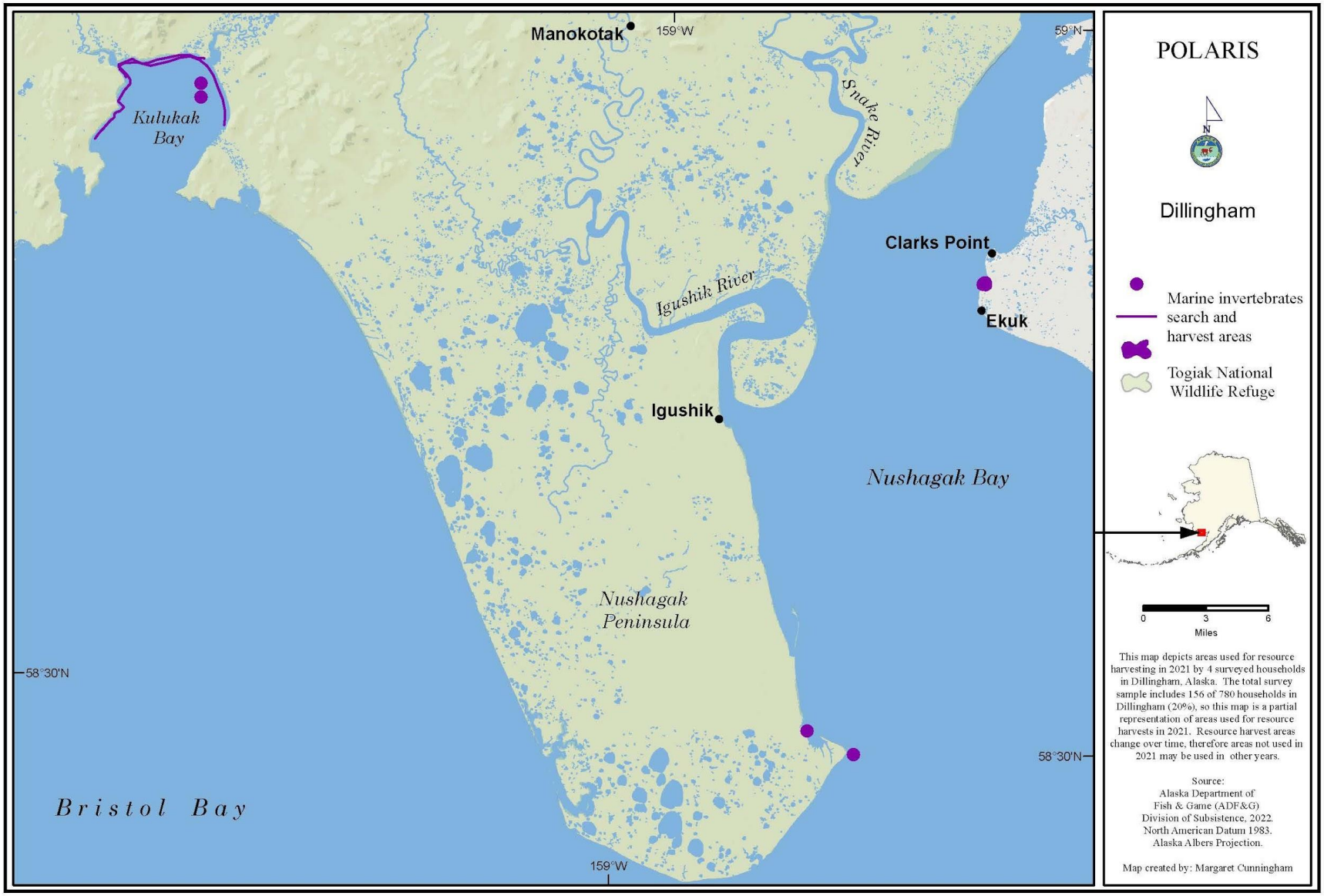
Source ADF&G Division of Subsistence household surveys, 2022.


159°W
158°W
Wood River
Dillingham
59°N
Manokotak
Snake River
Nushagak River
Clarks Point
Ekuk
Igushik River
Igushik
Nushagak Bay
Nushagak Peninsula
Kvichak Bay
Bristol Bay
POLARIS
N
Dillingham
Marine mammals search and harvest areas
Togiak National Wildlife Refuge
0
4
8
Miles
This map depicts areas used for resource harvesting in 2021 by 3 surveyed households in Dillingham, Alaska. The total survey sample includes 156 of 780 households in Dillingham (20%), so this map is a partial representation of areas used for resource harvests in 2021. Resource harvest areas change over time, therefore areas not used in 2021 may be used in other years.
Source:
Alaska Department of Fish & Game (ADF&G) Division of Subsistence, 2022.
North American Datum 1983.
Alaska Albers Projection.
Map created by: Margaret Cunningham

Estimated Marine Invertebrate Harvest

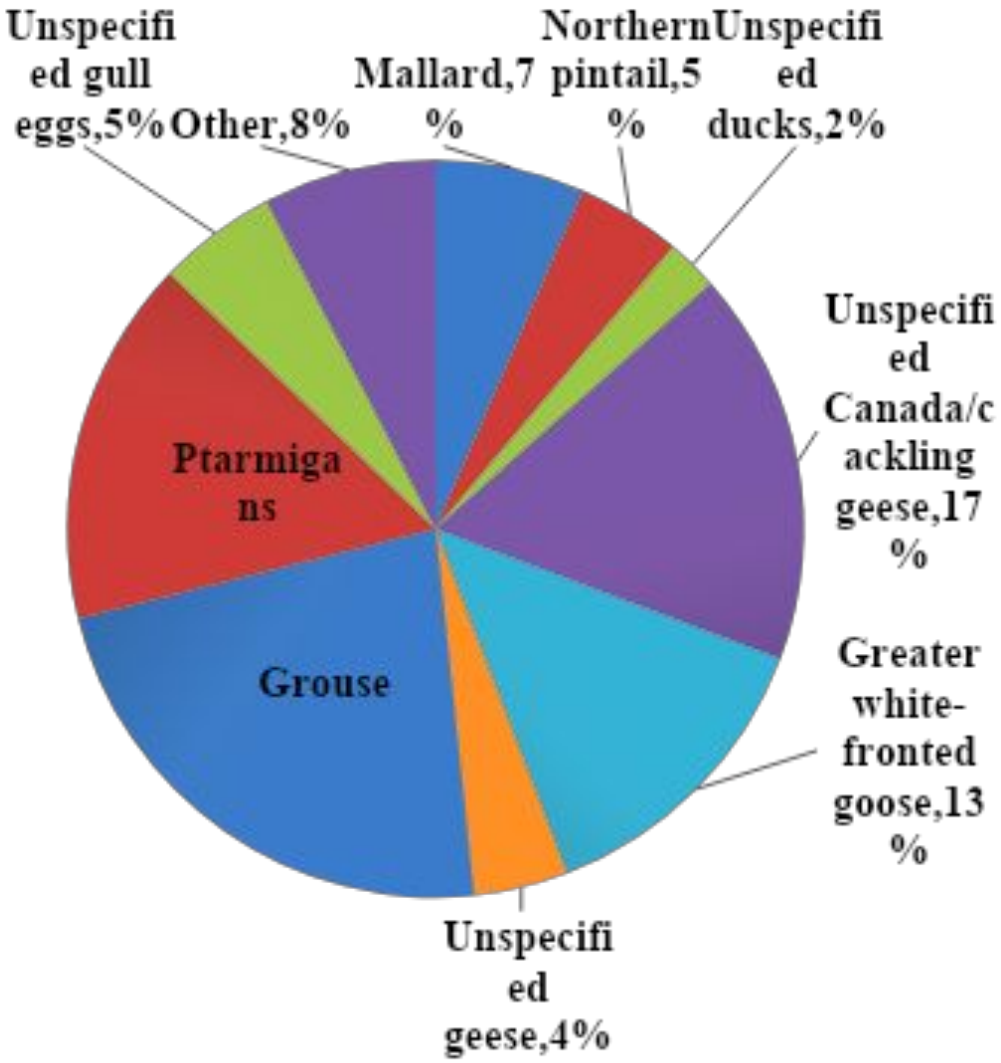


Resource	Percentage of households					Harvest weight (lb)			Harvest amount[a]			95% confidence limit (±)
	Use %	Attempt %	Harvest %	Receive %	Give %	Total	Mean per household	Per capita	Total	Unit	Mean per household	
Marine invertebrates	**26.5**	**6.5**	**6.5**	**21.9**	**12.3**	**1,046.1**	**1.6**	**0.5**	**1,046.1**	**lb**	**1.6**	**71.1**
Butter clam	1.9	1.3	1.3	0.6	1.9	28.4	0.0	0.0	9.5	gal	0.0	122.5
Razor clam	5.8	1.3	1.3	4.5	3.9	73.2	0.1	0.0	24.4	gal	0.0	132.0
Unspecified clams	2.6	0.6	0.6	1.9	0.0	64.5	0.1	0.0	21.5	gal	0.0	173.1
Unspecified cockles	16.8	3.2	3.2	14.8	7.7	774.6	1.2	0.4	258.2	gal	0.4	88.1
Dungeness crab	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	ind	0.0	0.0
Blue king crab	0.6	0.6	0.6	0.0	0.0	99.0	0.1	0.1	43.0	ind	0.1	173.1
Red king crab	0.6	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.0	ind	0.0	0.0
Unspecified crabs	1.9	0.0	0.0	1.9	1.3	0.0	0.0	0.0	0.0	ind	0.0	0.0
Unspecified mussels	1.3	0.6	0.6	0.6	1.3	6.5	0.0	0.0	4.3	gal	0.0	173.1
Octopus	0.6	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.0	ind	0.0	0.0
Shrimps	3.9	0.0	0.0	3.9	1.3	0.0	0.0	0.0	0.0	lb	0.0	0.0


Manokotak
159°W
59°N
Kulukak Bay
Snake River
Clarks Point
Igushik River
Ekuk
Igushik
Nushagak Bay
Nushagak Peninsula
58°30'N
Bristol Bay
159°W
58°30'N
POLARIS
Dillingham
Marine invertebrates search and harvest areas
Togiak National Wildlife Refuge
0
3
6
Miles
This map depicts areas used for resource harvesting in 2021 by 4 surveyed households in Dillingham, Alaska. The total survey sample includes 156 of 780 households in Dillingham (20%), so this map is a partial representation of areas used for resource harvests in 2021. Resource harvest areas change over time, therefore areas not used in 2021 may be used in other years.
Source:
Alaska Department of Fish & Game (ADF&G)
Division of Subsistence, 2022.
North American Datum 1983.
Alaska Albers Projection.
Map created by: Margaret Cunningham

Bird & Egg Harvest

Composition of bird and bird egg harvest in pounds usable weight, Dillingham, 2021



Note The other category includes species providing less than 1.5% each to the per capita harvest.

Estimated Bird & Egg Harvest

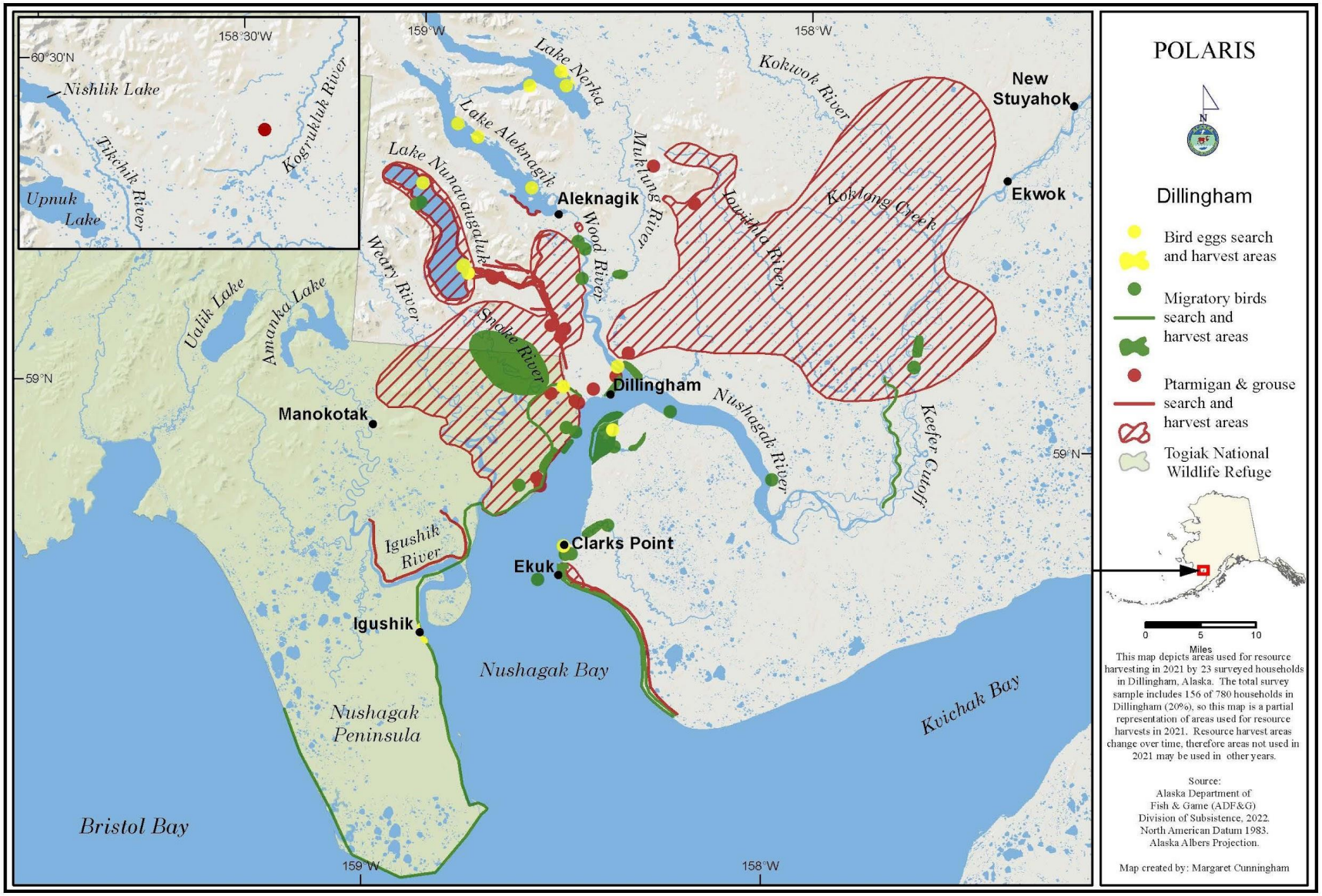
Resource	Percentage of households					Harvest weight (lb)			Harvest amount[a]			95% confidence limit (±)
	Use %	Attempt %	Harvest %	Receive %	Give %	Total	Mean per household	Per capita	Total	Unit	Mean per household	
Birds and eggs	**67.7**	**48.4**	**47.7**	**49.0**	**39.4**	**13,429.3**	**20.1**	**7.0**	**13,994.3**	**ind**	**21.0**	**35.9**
King eider	1.3	1.3	1.3	0.0	1.3	116.2	0.2	0.1	51.6	ind	0.1	123.7
Unspecified goldeneyes	1.3	1.3	1.3	0.0	0.0	60.1	0.1	0.0	47.3	ind	0.1	158.0
Mallard	17.4	13.5	12.9	6.5	11.0	879.9	1.3	0.5	546.5	ind	0.8	50.9
Unspecified mergansers	1.3	1.3	1.3	0.0	0.6	22.5	0.0	0.0	12.9	ind	0.0	115.4
Northern pintail	12.9	10.3	10.3	3.2	5.8	619.5	0.9	0.3	525.0	ind	0.8	62.4
Black scoter	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	ind	0.0	0.0
Surf scoter	0.6	0.6	0.6	0.0	0.6	25.1	0.0	0.0	17.2	ind	0.0	173.1
Northern shoveler	0.6	0.6	0.6	0.0	0.6	18.5	0.0	0.0	21.5	ind	0.0	173.1
Green-winged teal	8.4	5.8	5.8	3.2	2.6	107.2	0.2	0.1	228.1	ind	0.3	71.5
American wigeon	1.3	1.3	1.3	0.0	0.6	58.7	0.1	0.0	55.9	ind	0.1	138.8
Unspecified ducks	9.0	4.5	3.9	5.8	5.2	305.4	0.5	0.2	391.6	ind	0.6	90.7
Brant	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	ind	0.0	0.0
Cackling goose	0.6	0.6	0.6	0.0	0.0	86.5	0.1	0.0	25.8	ind	0.0	173.1
Unspecified Canada/cackling	14.2	10.3	9.7	7.1	5.8	2,321.9	3.5	1.2	693.1	ind	1.0	67.9
Emperor goose	0.6	0.6	0.6	0.0	0.6	53.0	0.1	0.0	17.2	ind	0.0	173.1
Greater white-fronted goose	9.7	7.1	7.1	3.2	5.8	1,806.3	2.7	0.9	568.0	ind	0.9	70.8
Unspecified geese	8.4	4.5	3.9	5.2	3.9	557.7	0.8	0.3	232.4	ind	0.3	99.3
Tundra (whistling) swan	1.3	1.3	1.3	0.0	1.3	133.4	0.2	0.1	12.9	ind	0.0	128.7
Sandhill crane	5.2	3.2	3.2	2.6	2.6	185.9	0.3	0.1	34.4	ind	0.1	80.0
Unspecified shorebirds	0.6	0.6	0.6	0.0	0.0	1.3	0.0	0.0	25.8	ind	0.0	173.1
Unspecified grouses	43.2	34.8	34.8	18.7	23.2	3,055.4	4.6	1.6	3,357.6	ind	5.0	27.6
Unspecified ptarmigans	35.5	25.8	25.2	16.8	17.4	2,160.4	3.2	1.1	2,805.7	ind	4.2	36.8
Unspecified duck eggs	5.8	5.8	5.8	0.6	0.6	147.2	0.2	0.1	981.1	ind	1.5	108.3
Unspecified gull eggs	38.7	17.4	17.4	28.4	21.3	705.2	1.1	0.4	3,295.1	ind	4.9	50.6
Unspecified murre eggs	5.2	0.0	0.0	5.2	2.6	0.0	0.0	0.0	0.0	ind	0.0	0.0
Unspecified tern eggs	1.3	1.3	1.3	0.0	0.6	2.0	0.0	0.0	47.3	ind	0.1	122.5

Estimated Bird & Egg Harvest Timing

Table n-m.–Estimated bird harvest by season, Dillingham, 2021.

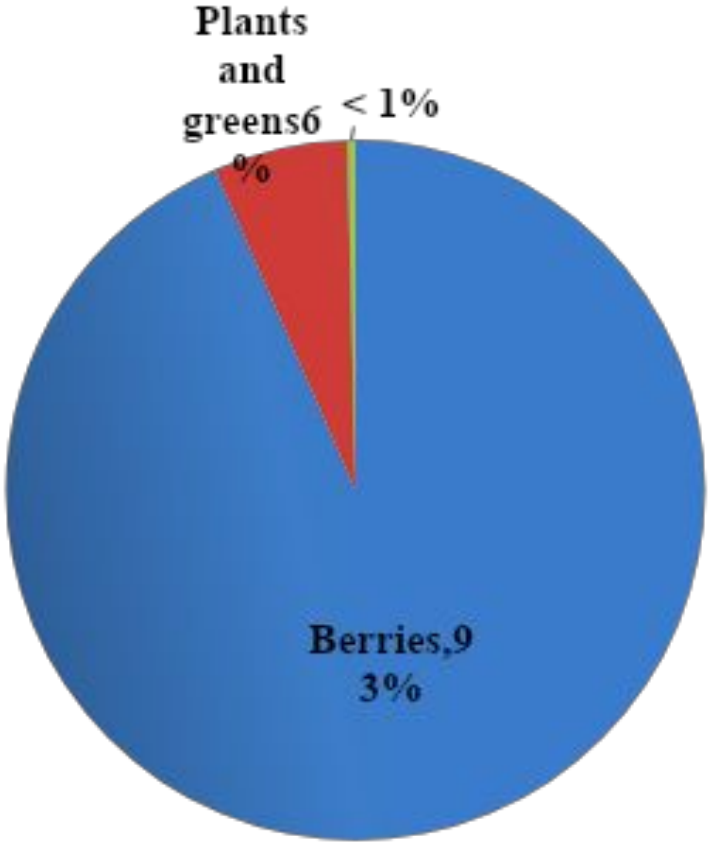
Resource	Estimated harvest by season					Total
	Spring	Summer	Fall	Winter	Season unknown	
All birds	**2,586.2**	**154.9**	**3,489.9**	**3,033.8**	**405.9**	**9,671**
King eider	51.6	0.0	0.0	0.0	0.0	**51.6**
Unspecified goldeneyes	0.0	4.3	43.0	0.0	0.0	**47.3**
Mallard	335.7	0.0	206.6	0.0	4.3	**546.5**
Unspecified mergansers	0.0	8.6	0.0	0.0	4.3	**12.9**
Northern pintail	378.7	0.0	142.0	0.0	4.3	**525.0**
Surf scoter	17.2	0.0	0.0	0.0	0.0	**17.2**
Northern shoveler	21.5	0.0	0.0	0.0	0.0	**21.5**
Green-Winged teal	120.5	0.0	107.6	0.0	0.0	**228.1**
American wigeon	43.0	0.0	12.9	0.0	0.0	**55.9**
Unspecified ducks	236.7	0.0	68.9	0.0	86.1	**391.6**
Unspecified canada/cackling geese	490.6	0.0	159.2	0.0	43.3	**693.1**
Emperor goose	8.6	0.0	8.6	0.0	0.0	**17.2**
Greater white-fronted goose	477.7	0.0	68.9	0.0	21.5	**568.0**
Unspecified geese	120.5	0.0	77.5	0.0	34.4	**232.4**
Tundra (whistling) swan	12.9	0.0	0.0	0.0	0.0	**12.9**
Sandhill crane	30.1	0.0	4.3	0.0	0.0	**34.4**
Unspecified shorebirds	25.8	0.0	0.0	0.0	0.0	**25.8**
Unspecified grouses	94.7	142.0	2,384.0	563.7	173.2	**3,357.6**
Unspecified ptarmigans	120.5	0.0	180.7	2,470.1	34.4	**2,805.7**

Source ADF&G Division of Subsistence household surveys, 2022.


POLARIS
Dillingham
Bird eggs search and harvest areas
Migratory birds search and harvest areas
Ptarmigan & grouse search and harvest areas
Togiak National Wildlife Refuge
0 5 10
Miles
This map depicts areas used for resource harvesting in 2021 by 23 surveyed households in Dillingham, Alaska. The total survey sample includes 156 of 780 households in Dillingham (20%), so this map is a partial representation of areas used for resource harvests in 2021. Resource harvest areas change over time, therefore areas not used in 2021 may be used in other years.
Source:
Alaska Department of Fish & Game (ADF&G)
Division of Subsistence, 2022.
North American Datum 1983.
Alaska Albers Projection.
Map created by: Margaret Cunningham
60°30'N
158°30'W
Nishlik Lake
Kogrukluk River
Tikchik River
Upnuk Lake
159°W
158°W
59°N
Lake Nerka
Lake Aleknagik
Lake Nunavaugaluk
Aleknagik
Wood River
Weary River
Snake River
Mulchatna River
Kokwok River
New Stuyahok
Ekwok
Koklong Creek
Ualik Lake
Amanka Lake
Manokotak
Dillingham
Nushagak River
Keefer Cutoff
Igushik River
Clarks Point
Ekuk
Igushik
Nushagak Bay
Nushagak Peninsula
Kvichak Bay
Bristol Bay

Vegetation Harvest by weight

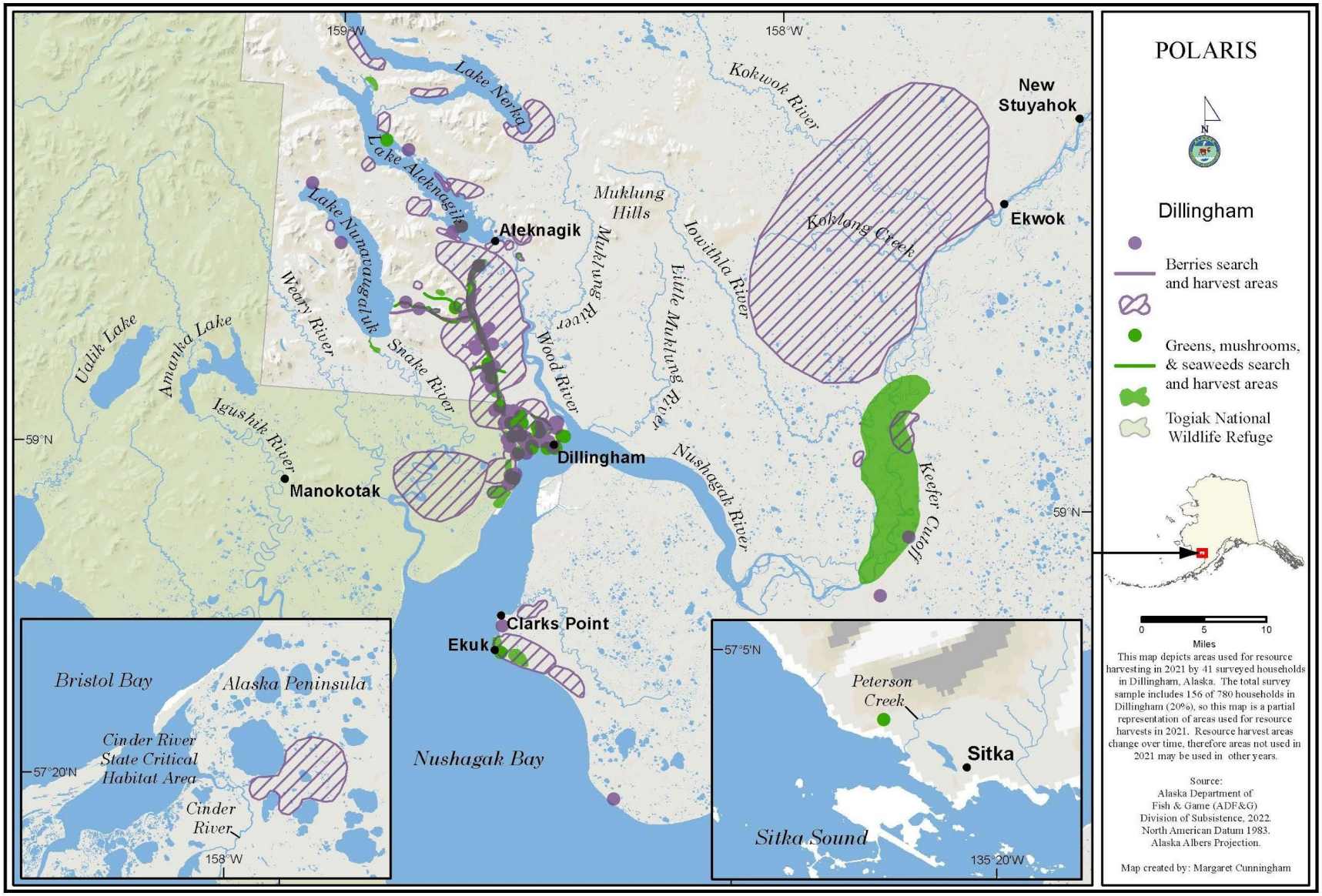
Composition of vegetation harvest by type in pounds usable weight, Dillingham, 2021



Vegetation Harvest by weight

Resource	Percentage of households					Harvest weight (lb)			Harvest amount[a]			95% confidence limit (±)
	Use %	Attempt %	Harvest %	Receive %	Give %	Total	Mean per household	Per capita	Total	Unit	Mean per household	
Vegetation	**85.2**	**78.1**	**78.1**	**54.2**	**56.8**	**25,823.8**	**38.7**	**13.5**	**8,384.6**	**gal**	**12.6**	**19.1**
Blueberry	69.0	60.6	60.6	26.5	38.1	5,407.0	8.1	2.8	1,351.8	gal	2.0	22.2
Lowbush cranberry	46.5	40.6	40.6	16.8	23.9	3,204.8	4.8	1.7	801.2	gal	1.2	30.4
Highbush cranberry	25.8	23.9	23.9	8.4	17.4	1,260.3	1.9	0.7	315.1	gal	0.5	34.6
Crowberry	43.9	38.1	38.1	16.1	22.6	2,787.7	4.2	1.5	696.9	gal	1.0	29.8
Currants	2.6	2.6	2.6	0.0	1.3	120.5	0.2	0.1	30.1	gal	0.0	95.1
Huckleberry	45.2	40.6	40.6	13.5	21.9	4,020.3	6.0	2.1	1,005.1	gal	1.5	24.2
Raspberry	20.6	18.1	18.1	7.1	11.0	1,583.6	2.4	0.8	395.9	gal	0.6	63.1
Salmonberry	61.9	52.3	51.0	29.0	34.8	5,650.5	8.5	3.0	1,412.6	gal	2.1	26.5
Strawberry	0.6	0.6	0.6	0.0	0.6	51.6	0.1	0.0	12.9	gal	0.0	173.1
Twisted stalk berry (watermelon berry)	2.6	2.6	2.6	0.0	1.3	43.0	0.1	0.0	10.8	gal	0.0	90.8
Other wild berries	1.9	1.9	1.9	0.0	0.0	19.4	0.0	0.0	4.8	gal	0.0	110.0
Wild rhubarb	2.6	2.6	2.6	0.6	1.3	124.8	0.2	0.1	124.8	gal	0.2	149.8
Wild potato	0.6	0.6	0.6	0.6	0.6	4.3	0.0	0.0	1.1	gal	0.0	173.1
Fiddlehead ferns	31.0	27.1	27.1	5.2	11.6	260.9	0.4	0.1	260.9	gal	0.4	31.5
Hudson's Bay (Labrador) tea	15.5	12.9	12.9	3.2	7.7	110.2	0.2	0.1	110.2	gal	0.2	53.8
Lambsquarter	0.6	0.6	0.6	0.0	0.6	8.6	0.0	0.0	8.6	gal	0.0	173.1
Dandelion greens	0.6	0.6	0.6	0.0	0.6	8.6	0.0	0.0	8.6	gal	0.0	173.1
Sourdock	9.0	7.7	7.7	1.9	3.9	279.7	0.4	0.1	279.7	gal	0.4	78.5
Spruce tips	1.3	1.3	1.3	0.0	0.6	17.2	0.0	0.0	17.2	gal	0.0	122.0
Wild celery	11.0	7.1	7.1	5.2	3.9	69.9	0.1	0.0	69.9	gal	0.1	69.1
Valerians	0.6	0.6	0.6	0.0	0.6	1.1	0.0	0.0	1.1	gal	0.0	173.1
Wild rose hips	1.3	1.3	1.3	0.0	1.3	17.2	0.0	0.0	4.3	gal	0.0	122.0
Yarrows	3.2	3.2	3.2	0.0	1.3	30.1	0.0	0.0	30.1	gal	0.0	83.0
Other wild greens	5.8	5.8	5.8	0.0	1.3	36.1	0.1	0.0	36.1	gal	0.1	70.7
Unspecified mushrooms	5.2	5.2	5.2	1.3	1.3	34.4	0.1	0.0	34.4	gal	0.1	78.5
Fireweed	9.0	7.1	7.1	3.9	5.2	176.4	0.3	0.1	176.4	gal	0.3	90.8
Stinkweed	18.7	15.5	15.5	4.5	9.7	325.9	0.5	0.2	325.9	gal	0.5	48.7
Unspecified fungus	3.9	3.9	3.9	1.3	2.6	35.0	0.1	0.0	35.0	gal	0.1	78.7
Puffballs	1.3	1.3	1.3	0.0	0.6	4.9	0.0	0.0	4.9	gal	0.0	154.3
Chaga	1.9	1.9	1.9	1.3	1.3	21.5	0.0	0.0	21.5	gal	0.0	103.2
Unspecified greens from land	0.6	0.6	0.6	0.0	0.0	1.1	0.0	0.0	1.1	gal	0.0	173.1
Sea lovage	0.6	0.6	0.6	0.6	0.6	4.3	0.0	0.0	4.3	gal	0.0	173.1
Beach greens	7.1	5.8	5.8	2.6	3.2	123.7	0.2	0.1	123.7	gal	0.2	79.0
Wild chive	0.6	0.6	0.6	0.0	0.0	4.3	0.0	0.0	4.3	gal	0.0	173.1
Mousefoods	0.6	0.6	0.6	0.0	0.0	1.1	0.0	0.0	1.1	gal	0.0	173.1
Seaweeds/kelps used for fertilizer	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	645.5	gal	1.0	173.1
Unspecified seaweeds	1.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	gal	0.0	0.0
Birch sap	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	43.0	gal	0.1	173.1

POLARIS Bristol Bay Native Association ALASKA DEPARTMENT OF FISH AND GAME

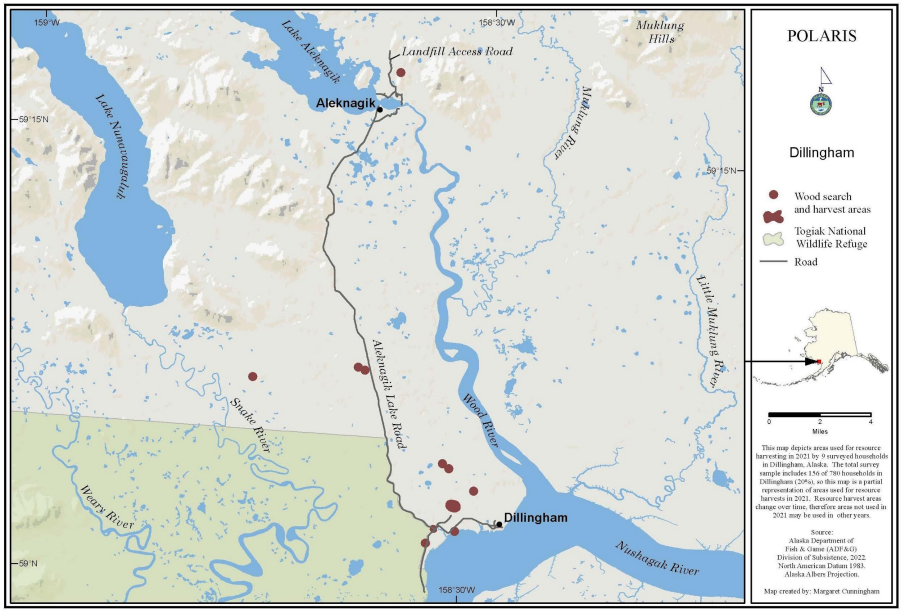

POLARIS
Dillingham
Berries search and harvest areas
Greens, mushrooms, & seaweeds search and harvest areas
Togiak National Wildlife Refuge
0 5 10
Miles
This map depicts areas used for resource harvesting in 2021 by 41 surveyed households in Dillingham, Alaska. The total survey sample includes 156 of 780 households in Dillingham (20%), so this map is a partial representation of areas used for resource harvests in 2021. Resource harvest areas change over time, therefore areas not used in 2021 may be used in other years.
Source:
Alaska Department of Fish & Game (ADF&G) Division of Subsistence, 2022.
North American Datum 1983.
Alaska Albers Projection.
Map created by: Margaret Cunningham
159°W
158°W
59°N
57°20'N
57°5'N
135°20'W
Lake Nerka
Lake Aleknagik
Lake Nunavaugaluk
Aleknagik
Muklung Hills
Wood River
Weary River
Snake River
Igushik River
Ualik Lake
Amanka Lake
Manokotak
Dillingham
Little Muklung River
Nushagak River
Kokwok River
New Stuyahok
Ekwok
Koklong Creek
Keefer Cutoff
Clarks Point
Ekuk
Nushagak Bay
Bristol Bay
Alaska Peninsula
Cinder River State Critical Habitat Area
Cinder River
158°W
Peterson Creek
Sitka
Sitka Sound

Firewood

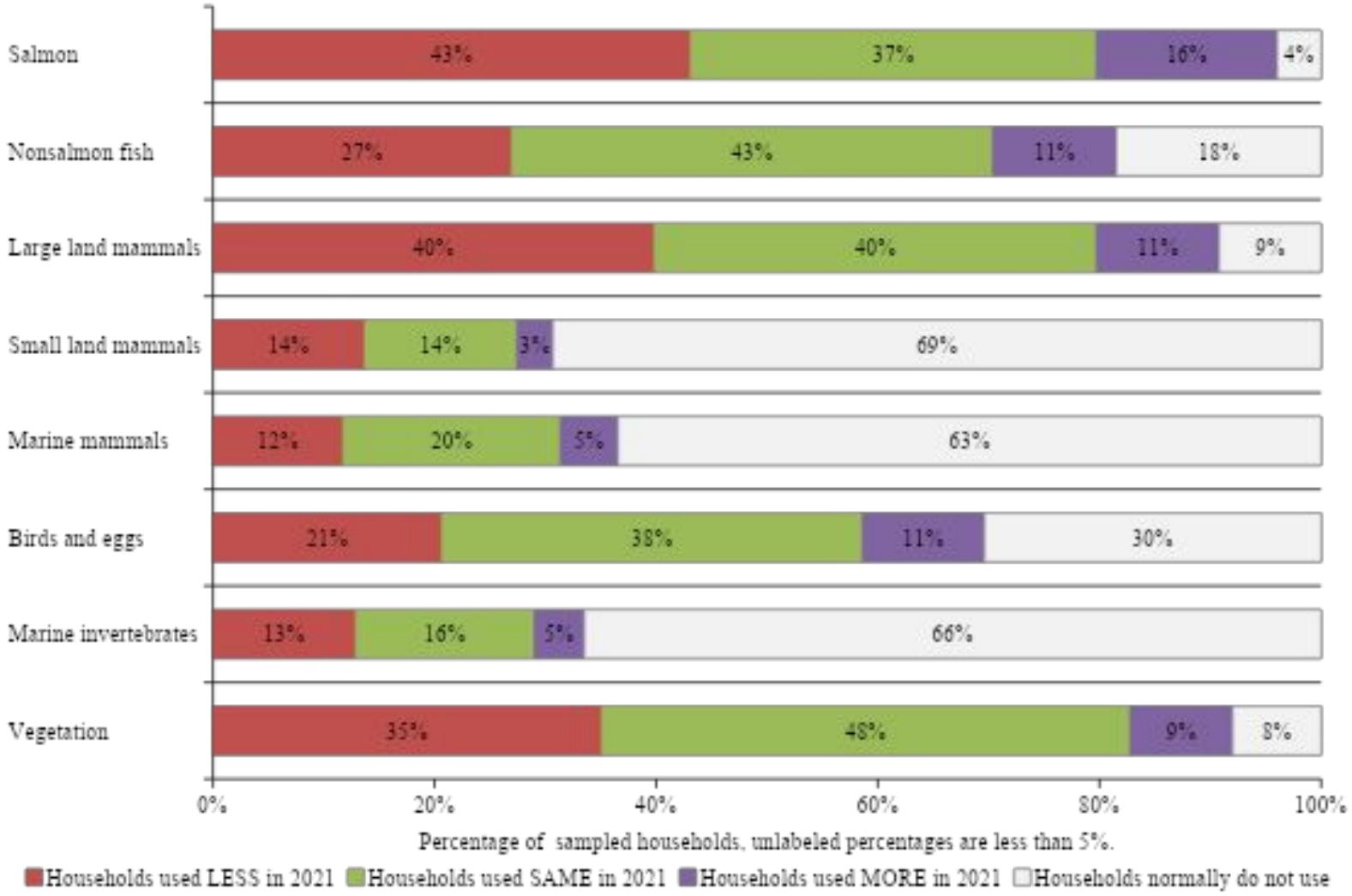
Table n-m.–Use of firewood for home heating, Dillingham, 2021.

Percent of home heating from wood	Households using wood for home heating: Northway No.	Households using wood for home heating: Northway %
0%	76	49.0
1-25%	44	28.4
26-50%	19	12.3
51-75%	11	7.1
76-99%	5	3.2
100%	0	0.0

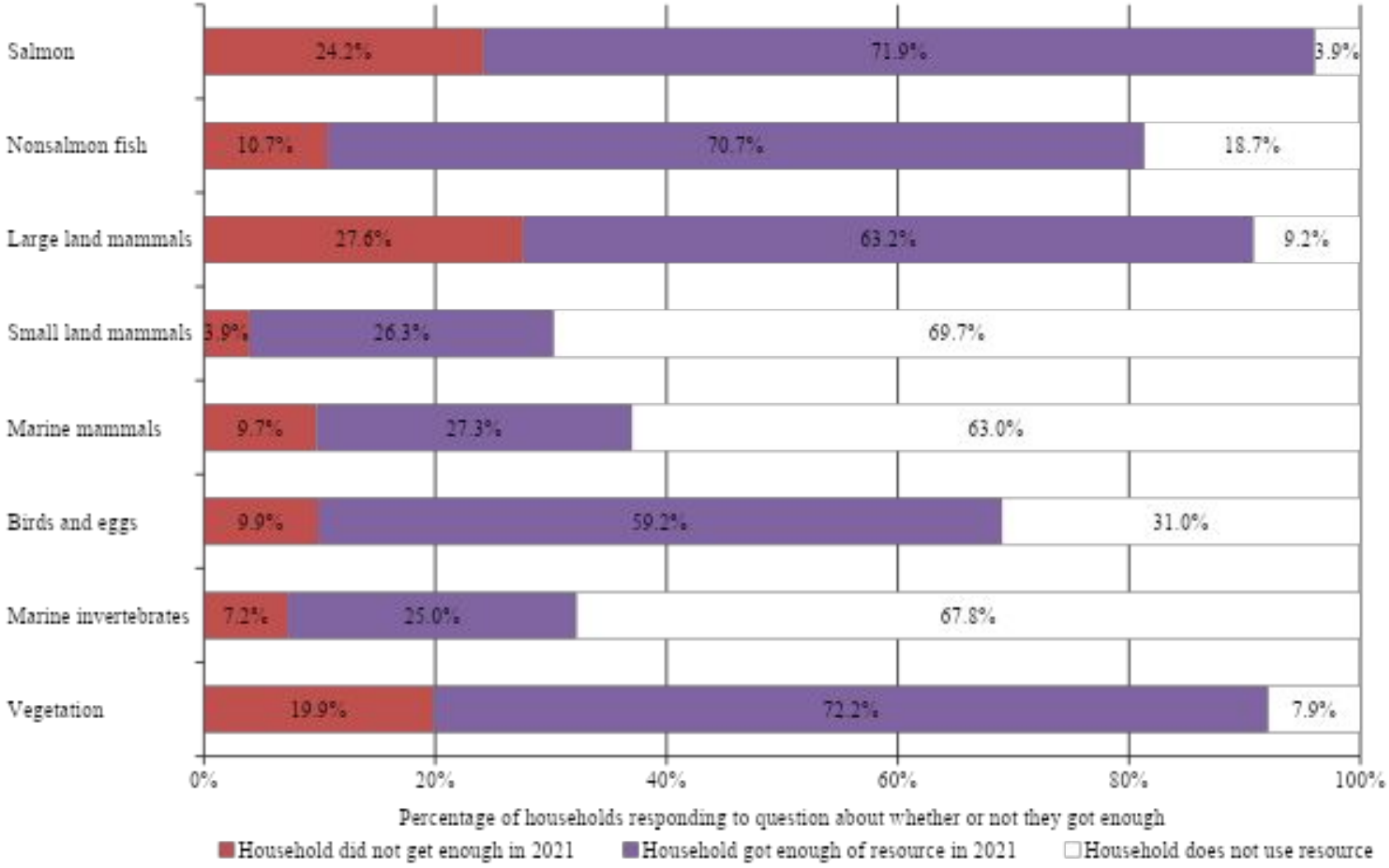
Source ADF&G Division of Subsistence household surveys, 2022.



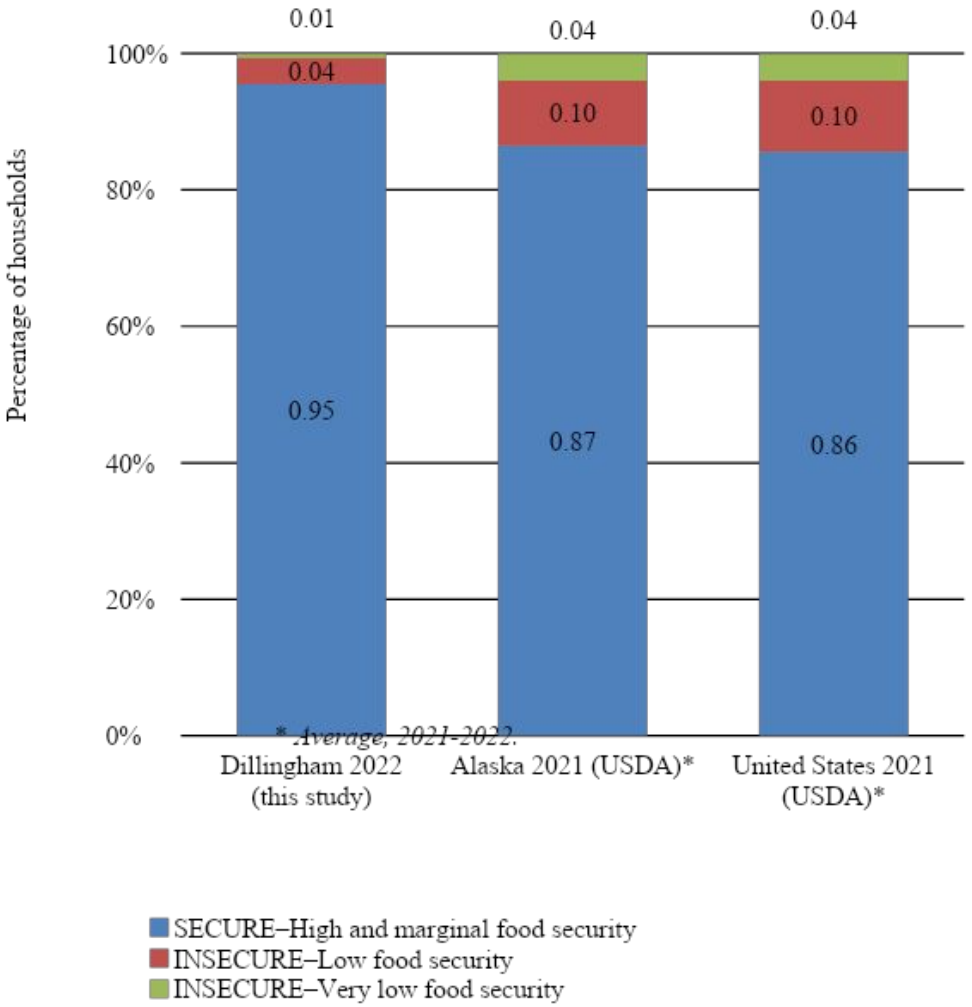
Impact Assessment: Less, Same, More



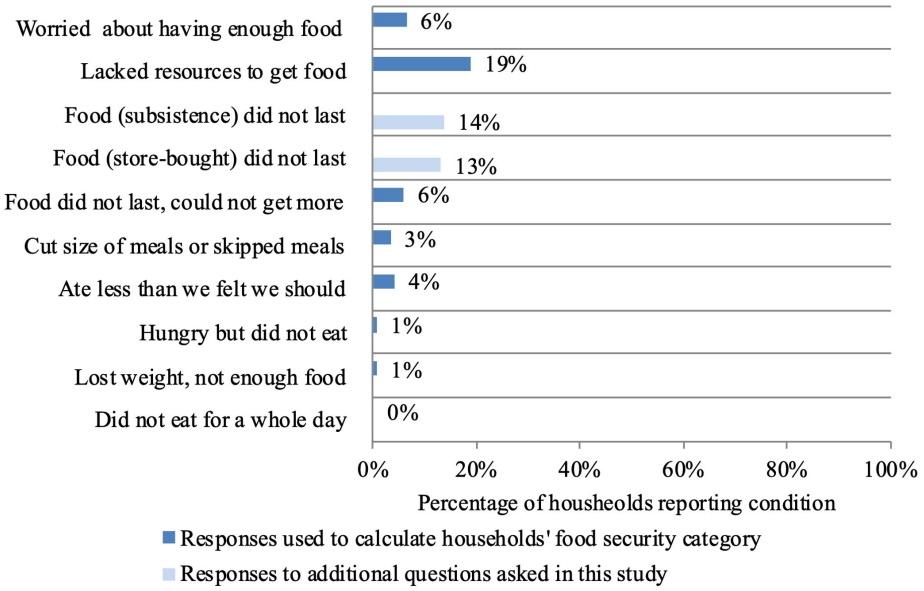
Impact Assessment



Food Security



Food Security



Food security question	Community Dillingham
Did not eat for a whole day	0%
Lost weight, not enough food	1%
Hungry but did not eat	1%
Ate less than we felt we should	4%
Cut size of meals or skipped meals	3%
Food (store-bought) did not last	13%
Food (subsistence) did not last	14%
Food did not last, could not get more	6%
Lacked resources to get food	19%
Worried about having enough food	6%

Food Security

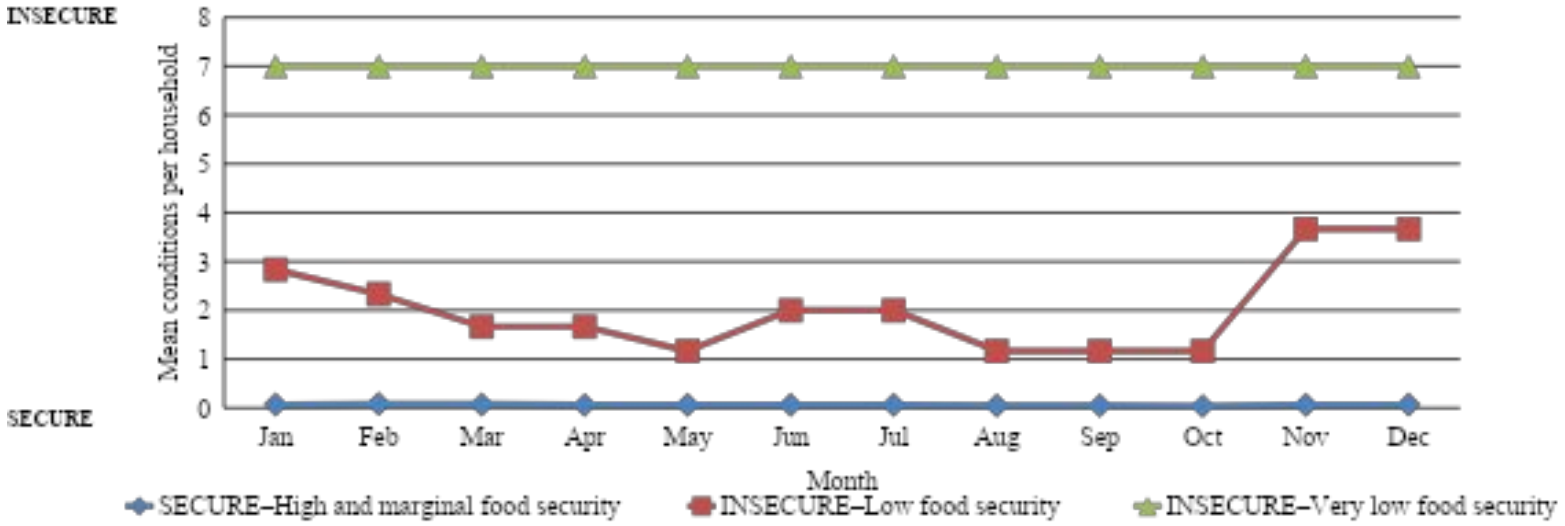


Table . Dillingham mean number of food insecure conditions for each month food was reported not to have lasted, 2021.

	Mean number of food insecure conditions for either subsistence or store-bought food											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
High and marginal food security	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Low food security	2.8	2.3	1.7	1.7	1.2	2.0	2.0	1.2	1.2	1.2	3.7	3.7
Very low food security	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0

	Mean number of food insecure conditions for either subsistence foods											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
High and marginal food security	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low food security	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.2	1.2	1.2	1.8
Very low food security	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0

	Mean number of food insecure conditions for eitherstore-bought foods											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
High and marginal food security	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low food security	2.3	1.8	0.7	0.7	0.7	1.5	1.5	0.7	0.7	0.7	3.7	3.7
Very low food security	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0

Food Security

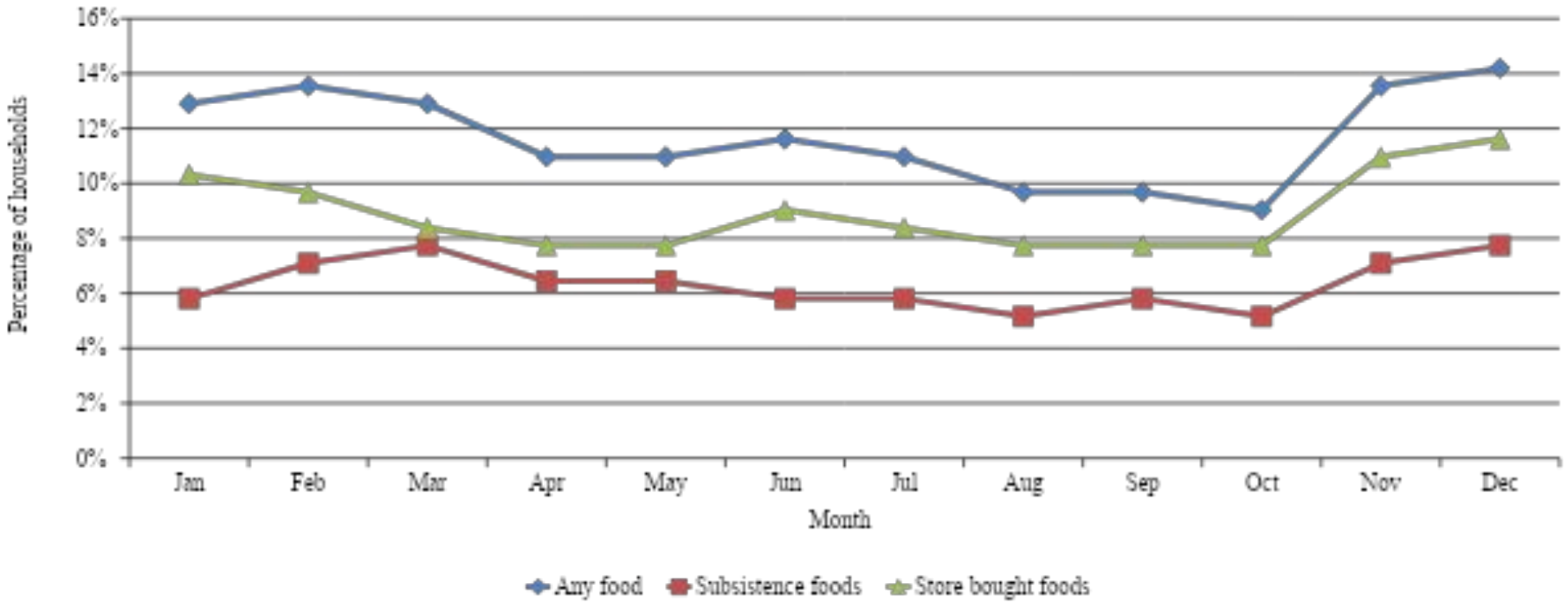
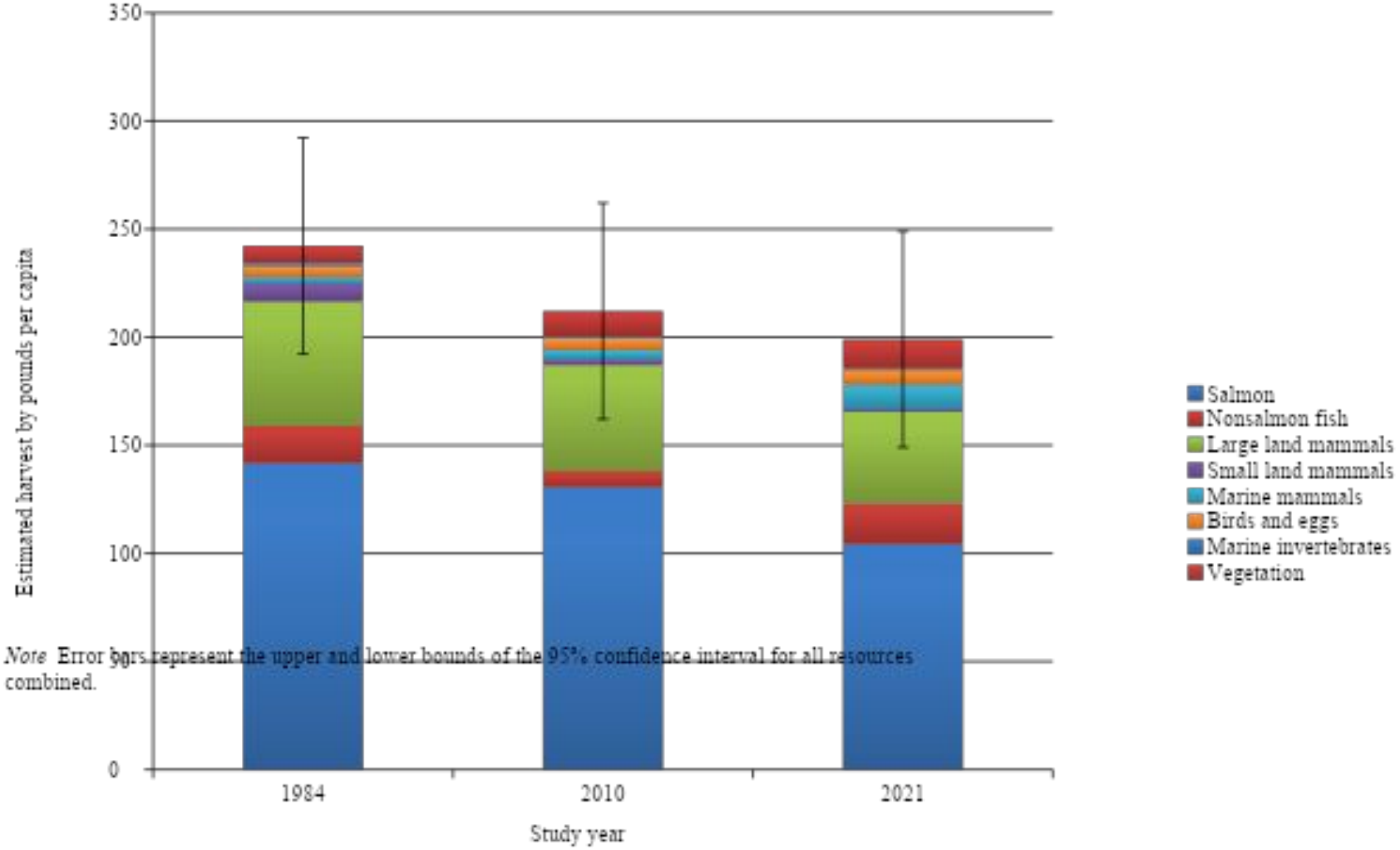


Table . Comparison of months where subsistence foods did not last vs. store foods did not last, Dillingham, 2021.

	Percentage of households reporting foods not lasting by month											
Food Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Any food	12.9%	13.5%	12.9%	11.0%	11.0%	11.6%	11.0%	9.7%	9.7%	9.0%	13.5%	14.2%
Subsistence foods	5.8%	7.1%	7.7%	6.5%	6.5%	5.8%	5.8%	5.2%	5.8%	5.2%	7.1%	7.7%
Store bought foods	10.3%	9.7%	8.4%	7.7%	7.7%	9.0%	8.4%	7.7%	7.7%	7.7%	11.0%	11.6%

Source ADF&G Division of subsistence household surveys, 2022.

Historical Harvest Comparisons



Note Error bars represent the upper and lower bounds of the 95% confidence interval for all resources combined.

EMPLOYMENT CHARACTERISTICS

Table n-m.–Employment characteristics, Dillingham, 2021.

Characteristic	Community Dillingham
All adults	
Number	1,360.4
Mean weeks employed	39.4
Employed adults	
Number	1,216.1
Percentage	89.4%
Jobs	
Number	1,581.4
Mean	1.3
Minimum	1
Maximum	4
Months employed	
Mean	10.2
Minimum	1
Maximum	12
Percentage employed year-round	54.2%
Mean weeks employed	44.1
Households	
Number	667.0
Employed	
Number	607.0
Percentage	91.0%
Jobs per employed household	
Mean	2.6
Minimum	1
Maximum	7
Employed adults	
Mean	
Employed households	2.0
Total households	1.8
Minimum	1
Maximum	5
Mean person-weeks of employment	88.3

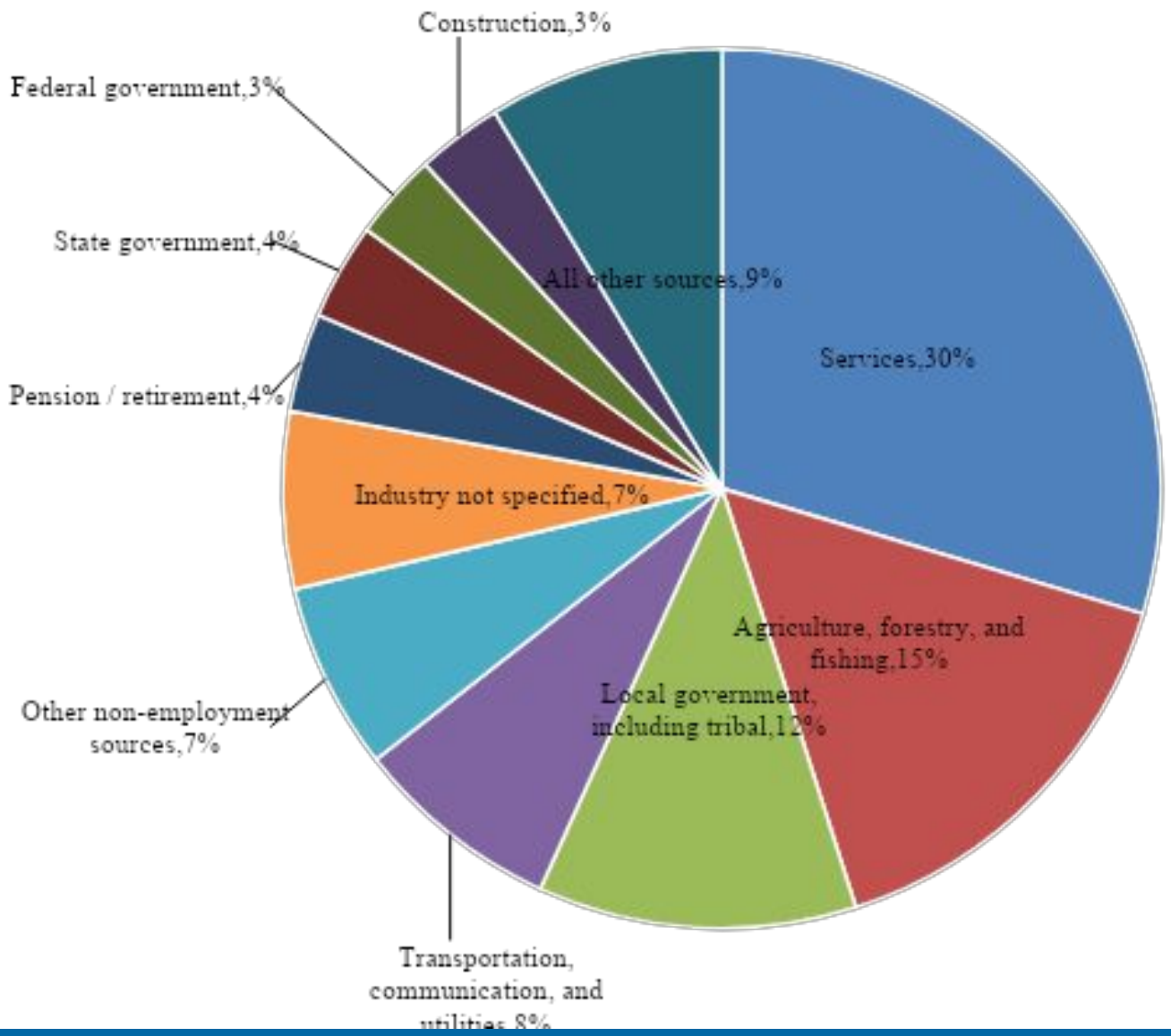
Table n-m.–Reported job schedules, Dillingham, 2021.

Schedule	Jobs		Employed persons		Employed households	
	Number	Percentage	Number	Percentage	Number	Percentage
Full time	801.3	50.7%	771.0	63.4%	503.9	83.0%
Part time	150.3	9.5%	141.5	11.6%	115.9	19.1%
Shift - full time	10.0	0.6%	10.0	0.8%	10.0	1.7%
On-call, varies	477.9	30.2%	422.4	34.7%	284.3	46.8%
Schedule not reported	143.1	9.0%	143.1	11.8%	107.8	17.8%

Source ADF&G Division of Subsistence household surveys, 2022.

Note Respondents who had more than one job in the study year could provide multiple responses, so the percentages may sum to more than 100%.

PERCENTAGE OF EARNED COMMUNITY INCOME BY INDUSTRY CATEGORY



Estimated earned Income

Income source	Number of employed adults	Number of households	Total for community	-/+ 95% CI	Mean per household	Percentage of total community income
Earned income						
Services	470.0	383.7	$25,872,533	$20,967,364 – $32,131,587	$38,789	29.6%
Agriculture, forestry, and fishing	379.2	258.5	$13,526,944	$9,214,895 – $18,328,136	$20,280	15.5%
Local government, including tribal	201.6	175.4	$10,245,785	$7,321,710 – $13,961,030	$15,361	11.7%
Transportation, communication, and utilities	103.4	94.8	$6,676,195	$3,616,717 – $12,328,052	$10,009	7.6%
Industry not specified	130.0	94.8	$5,695,184	$3,312,360 – $8,846,053	$8,539	6.5%
State government	51.6	51.6	$3,102,554	$1,568,180 – $5,020,516	$4,652	3.5%
Federal government	34.2	30.0	$2,793,759	$759,045 – $5,489,284	$4,189	3.2%
Construction	47.7	38.8	$2,753,763	$859,856 – $6,609,518	$4,129	3.2%
Retail trade	77.3	68.6	$1,512,912	$547,432 – $2,672,489	$2,268	1.7%
Manufacturing	21.4	21.4	$49,364	$2,953 – $162,950	$74	0.1%
Wholesale trade	4.3	4.3	$0	$0 – $1	$0	0.0%
Earned income subtotal	**1,216.1**	**607.0**	**$72,228,992**	**$64,254,405 – $83,111,318**	**$108,289**	**82.6%**

POLARIS Bristol Bay Native Association ALASKA DEPARTMENT OF FISH AND GAME

Estimated Other Income

Income source	Number of employed adults	Number of households	Total for community	-/+ 95% CI	Mean per household	Percentage of total community income
Other income						
Pension/Retirement		119.5	$3,165,183	$1,805,012 – $4,802,400	$4,745	3.6%
Social Security		167.5	$2,103,241	$1,417,193 – $3,085,460	$3,153	2.4%
Alaska Permanent Fund		619.8	$1,952,202	$1,751,490 – $2,170,880	$2,927	2.2%
Rental income		82.0	$1,446,863	$527,061 – $3,325,986	$2,169	1.7%
Other		176.3	$1,330,713	$724,123 – $2,524,248	$1,995	1.5%
Native Corp. Dividend		426.2	$1,232,283	$936,090 – $1,607,254	$1,848	1.4%
Economic impact payment		559.6	$1,167,347	$972,949 – $1,401,530	$1,750	1.3%
Energy assistance		391.5	$721,099	$611,792 – $830,971	$1,081	0.8%
Disability		29.9	$291,298	$16,253 – $688,941	$437	0.3%
Meeting Honoraria		25.9	$267,364	$4,331 – $804,847	$401	0.3%
Child support		51.9	$266,722	$102,960 – $575,122	$400	0.3%
Food Stamps		94.5	$254,997	$114,576 – $486,166	$382	0.3%
Unemployment		42.7	$204,670	$19,000 – $479,692	$307	0.2%
Adult Public Assistance (OAA, APD)		26.0	$165,689	$2,727 – $633,426	$248	0.2%
Workmans comp		21.7	$140,208	$17,526 – $667,000	$210	0.2%
Equipment leasing		21.8	$131,892	$17,442 – $854,458	$198	0.2%
Veterans assistance		21.7	$91,299	$19,139 – $419,636	$137	0.1%
Foster care		26.1	$70,652	$16,063 – $259,589	$106	0.1%
Supplimental Security Income (SSI)		21.8	$60,835	$2,447 – $290,973	$91	0.1%
Fishing permit revenues		21.8	$58,686	$15,269 – $268,842	$88	0.1%
Dividend / interest		21.4	$25,743	$14,411 – $108,987	$39	0.0%
Women, Infants, and Children (WIC)		21.4	$15,410	$4,320 – $32,934	$23	0.0%
Fuel Vouchers		21.5	$13,334	$7,094 – $35,573	$20	0.0%
Longevity Bonus		25.9	$7,948	$2,194 – $20,010	$12	0.0%
TANF (Temp. Cash Asst. for needy families)		17.3	$3,088	$657 – $9,877	$5	0.0%
Other income subtotal		**662.8**	**$15,188,764**	**$12,839,304 – $17,839,971**	**$22,772**	**17.4%**
Community income total			**$87,417,756**	**$79,185,759 – $98,135,754**	**$131,061**	**100.0%**

Bristol Bay Native Association



Thank you!
Questions or Comments