

Appendix N - Subsistence

1. Ambler

1.1. Harvest Data

Table 1: Ambler Subsistence Harvest Estimates by Resource Category, All Resources Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				% of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
2012	All Resources	98	96	96	87	92		170,468	2,243	603	100.0%
	Salmon	68	40	40	28	45		10,096	133	36	5.9%
	Non-Salmon Fish	92	77	72	53	68		49,411	650	175	28.9%
	Large Land Mammals	94	74	64	64	72		102,116	1,344	361	59.9%
	Small Land Mammals	36	32	30	21	21		2,566	34	9	1.5%
	Marine Mammals	62	2	2	26	60		602	8	2	0.3%
	Migratory Birds	58	40	38	23	30		2,242	30	8	1.3%
	Upland Game Birds	55	40	38	28	26	477	477	6	2	0.2%
	Bird Eggs	6	2	2	0	4		13	0	0	<0.1%
	Marine Invertebrates	4	2	2	2	2	172	172	2	1	0.1%
	Vegetation	98	85	77	51	51		2,772	36	10	1.6%

Notes: Blank cells indicate no data.
¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons.
²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers).

Sources: 2012 (Braem, Mikow, Wilson, and Kostick 2015).
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Table 2: Ambler Subsistence Harvest Estimates by Resource Category, Non-Comprehensive Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Number	Total Pounds	Average HH Pounds	Per Capita Pounds
Salmon										
2013	Salmon	83	65	64	40	64		27,158	394	120
2014	Salmon	87	60	60	36	76		28,934	391	107
Non-Salmon Fish										
2013	Non-Salmon Fish	94	90	81	64	83		48,312	700	213
2014	Non-Salmon Fish	93	78	78	56	66		61,970	837	228
Large Land Mammals										
2003	Large Land Mammals	95	74	69	56	71	343	50,620	756	202
2009	Large Land Mammals	78	78	76	54	44	468	64,824	968	272
Small Land Mammals										
2003	Small Land Mammals	6	6	6	0	0	34	0	0	0
2009	Small Land Mammals	20	20	18	12	6	99	0	0	0
Migratory Birds										
1997	Migratory Birds			74			1,822	4,387	57	13

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Number	Total Pounds	Average HH Pounds	Per Capita Pounds
Upland Birds										
1997	Upland Game Birds			46			583	568	7	2
Bird Eggs										
1997	Bird Eggs			0			0	0	0	0
Notes: Blank cells indicate no data.										
Sources: 1997 (Georgette 2000); 2003 (ADF&G 2025); 2009 (Braem 2012a); 2013 (Braem, Godduhn, Mikow, Brenner, Trainor, Wilson, and Kostick 2018); 2014 (Braem et al. 2018)										
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Table 3: Ambler Subsistence Harvest Estimates by Selected Species, All Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Number ¹	Total Pounds ²	Mean HH Pounds	Per Capita Pounds	
1997	Canada Geese			66			462	1,533	20	5	
	Mallard			54			389	759	10	2	
	White-fronted Geese			17			174	737	10	2	
	Other Birds			46			583	568	7	2	
	Willow Ptarmigan			43			535	535	7	2	
2003	Caribou	95	74	69	53	50	325	44,237	660	176	
	Moose	52	29	15	15	45	11	5,814	87	23	
	Black Bear	26	15	10	8	16	5	475	7	2	
	Brown Bear	2	8	2	2	0	1	93	1	0	
	Wolf	5	5	5	0	0	19	0	0	0	
2009	Caribou	78	78	76	52	44	456	61,962	925	260	
	Black Bear	6	8	6	6	0	4	354	5	1	
	Red Fox	8	6	6	4	4	4	0	0	0	
	Beaver	14	14	14	10	2	75	0	0	0	
	Wolf	10	10	8	4	2	12	0	0	0	
2012	Caribou	91	70	62	62	60	685	93,220	1,227	330	54.6%
	Broad Whitefish	62	36	34	25	42	9,150	29,280	385	104	17.1%
	Sheefish	81	62	57	43	51	1,156	12,875	169	46	7.5%
	Chum Salmon	66	38	38	26	43	1,621	9,214	121	33	5.4%
	Moose	49	28	19	21	34	14	7,715	102	27	4.5%
	Humpback Whitefish	19	11	9	6	13	1,544	3,243	43	11	1.9%
	Beaver	28	23	23	15	15	115	2,266	30	8	1.3%
2013	Sheefish	90	79	75	50	67	2,582	29,437	427	130	
	Chum salmon	81	64	62	39	62	4,321	25,577	371	113	
	Broad whitefish	71	50	48	31	60	3,364	10,764	156	47	
	Humpback whitefish	42	33	27	17	33	2,233	4,690	68	21	

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Number ¹	Total Pounds ²	Mean HH Pounds	Per Capita Pounds	
	Northern pike	39	35	29	14	16	646	2133	31	9	
2014	Chum salmon	82	58	58	36	67	4,182	25,993	351	96	
	Sheefish	91	75	75	47	51	1,806	20,585	278	76	
	Broad whitefish	53	29	29	20	42	9,492	30,375	411	112	
	Arctic grayling	46	40	38	15	24	908	817	11	3	
	Dolly Varden	36	26	24	4	20	67	222	3	1	

Notes: Blank cells indicate no data.

¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons.

²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers).

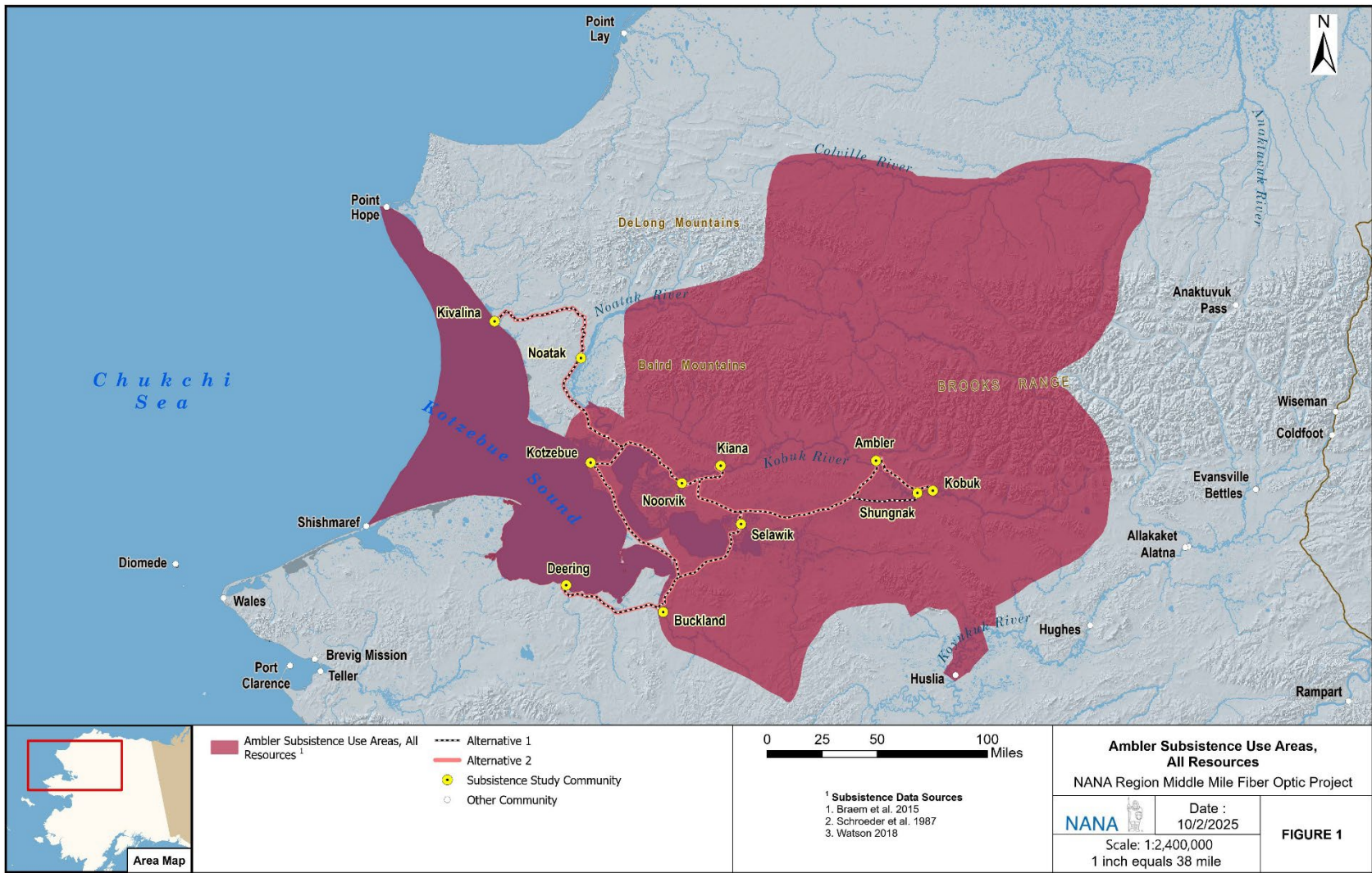
For All Resources study years (2012), species are listed in descending order by percent of total harvest and are limited to species accounting for at least 1.0 percent of the total harvest; for single-resource study years, species are listed in descending order by total estimated pounds and limited to the five top species. Years lacking "% of total harvest" data were not comprehensive (i.e., all resources) study years.

Sources: 1997 (Georgette 2000); 2003 (ADF&G 2025); 2009 (Braem 2012a); 2012 (Braem et al. 2015); 2013 (Braem et al. 2018); 2014 (Braem et al. 2018)

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1.2.Subsistence Use Areas

Figure 1: Ambler Subsistence Use Areas, All Resources



1.3. Timing of Subsistence Activities

Figure 2: Ambler Timing of Subsistence Activities

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Most Recent Decade for Subsistence Activity/Harvest Data
Freshwater non-salmon fish													1990s
Marine non-salmon fish													1970s
Salmon													1990s
Caribou													2010s
Moose													2010s
Bear													2010s
Sheep													2010s
Furbearers													2010s
Small land mammals													2010s
Marine mammals													2010s
Upland birds													2010s
Waterfowl													2010s
Eggs	No Data												
Marine Invertebrates	No Data												
Plants and Berries													1990s
Wood													1970s
Sources: Watson (2018); Anderson, Anderson, Bane, Nelson, and Towarak (1998); Braem (2012a); Braem et al. (2015)													

2. Buckland

2.1. Harvest Data

Table 4: Buckland Subsistence Harvest Estimates by Resource Category, All Resources Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
2003	All Resources	99	90	90	89	82	174,785	226,074	2,569	554	100.0%
	Salmon	65	41	39	53	28	3,939	23,962	272	59	10.6%
	Non-Salmon Fish	83	72	72	60	59	158,099	39,099	444	96	17.3%
	Large Land Mammals	90	63	60	22	18	662	99,650	1,132	244	44.1%
	Small Land Mammals	33	33	22	5	16	175	783	9	2	0.3%
	Marine Mammals	80	35	37	64	18	297	50041	569	123	22.1%
	Migratory Birds	55	51	42	28	36	1238	3489	40	9	1.5%
	Upland Game Birds	36	34	31	10	24	451	451	5	1	0.2%
	Bird Eggs	55	53	51	30	35	8793	1847	21	5	0.8%
	Marine Invertebrates	5	2	1	4	1	4	9	0	0	0.0%
	Vegetation	93	82	81	33	46	1128	6744	77	17	3.0%
2018	All Resources	100	93	93	85	99	325,037	325,037	3,218	553	100.0%
	Salmon	94	59	56	46	72	70,115	70,115	694	119	21.6%
	Non-Salmon Fish	94	79	77	70	75	47,104	47,104	466	80	14.5%
	Large Land Mammals	97	65	59	54	75	137,775	137,775	1,364	235	42.4%
	Small Land Mammals	39	38	35	27	13	1,759	1,759	17	3	0.5%
	Marine Mammals	92	59	55	52	75	50324	50324	498	86	0
	Migratory Birds	66	48	45	34	31	6,500	6,500	64	11	2.0%
	Upland Game Birds	44	42	37	27	13	290	290	3	0	0
	Bird Eggs	70	58	54	30	31	2560	2560	25	4	0
	Marine Invertebrates	11	8	7	3	6	232	232	2	0	0
	Vegetation	100	92	92	68	54	8,370	8,370	83	14	2.6%

Notes: Blank cells indicate no data.
¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons.
²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers).

Sources: 2003 (Magdanz, Koster, Naves, and Fox 2011); 2018 (Mikow and Cunningham 2020).

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Table 5: Buckland Subsistence Harvest Estimates by Resource Category, Non-Comprehensive Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Numbers	Total Pounds	Average HH Pounds	Per Capita Pounds
Salmon										
2013	Salmon	81	53	52	37	55		25,705	245	50
2014	Salmon	84	53	53	40	63		37,732	385	73
Non-Salmon Fish										
2013	Non-Salmon Fish	94	84	79	61	61		23,491	224	46
2014	Non-Salmon Fish	94	82	82	67	73		39,328	401	76
Large Land Mammals										
2009-10	Large Land Mammals	67	67	66	49	47	549	79,382	892	183
2016-17	Large Land Mammals	99	86	83	72	83	710	101,658	1,017	193
Small Land Mammals										
2009-10	Small Land Mammals	29	30	26	10	9	65	0	0	0
2016-17	Small Land Mammals	11	12	10	2	1	16	0	0	0
Migratory Birds										
1996	Migratory Birds			65			1,853	4,590	57	12
Upland Game Birds										
1996	Upland Game Birds			25			255	254	3	1
Bird Eggs										
1996	Bird Eggs			50			3,370	942	12	2
Notes: Blank cells indicate no data.										
Sources: 1996 (Georgette 2000); 2009-10 (Braem 2012a); 2013-2014 (Braem et al. 2018); 2016-17 (Gonzalez, Mikow, and Kostick 2018)										

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Table 6: Buckland Subsistence Harvest Estimates by Selected Species, All Study Years

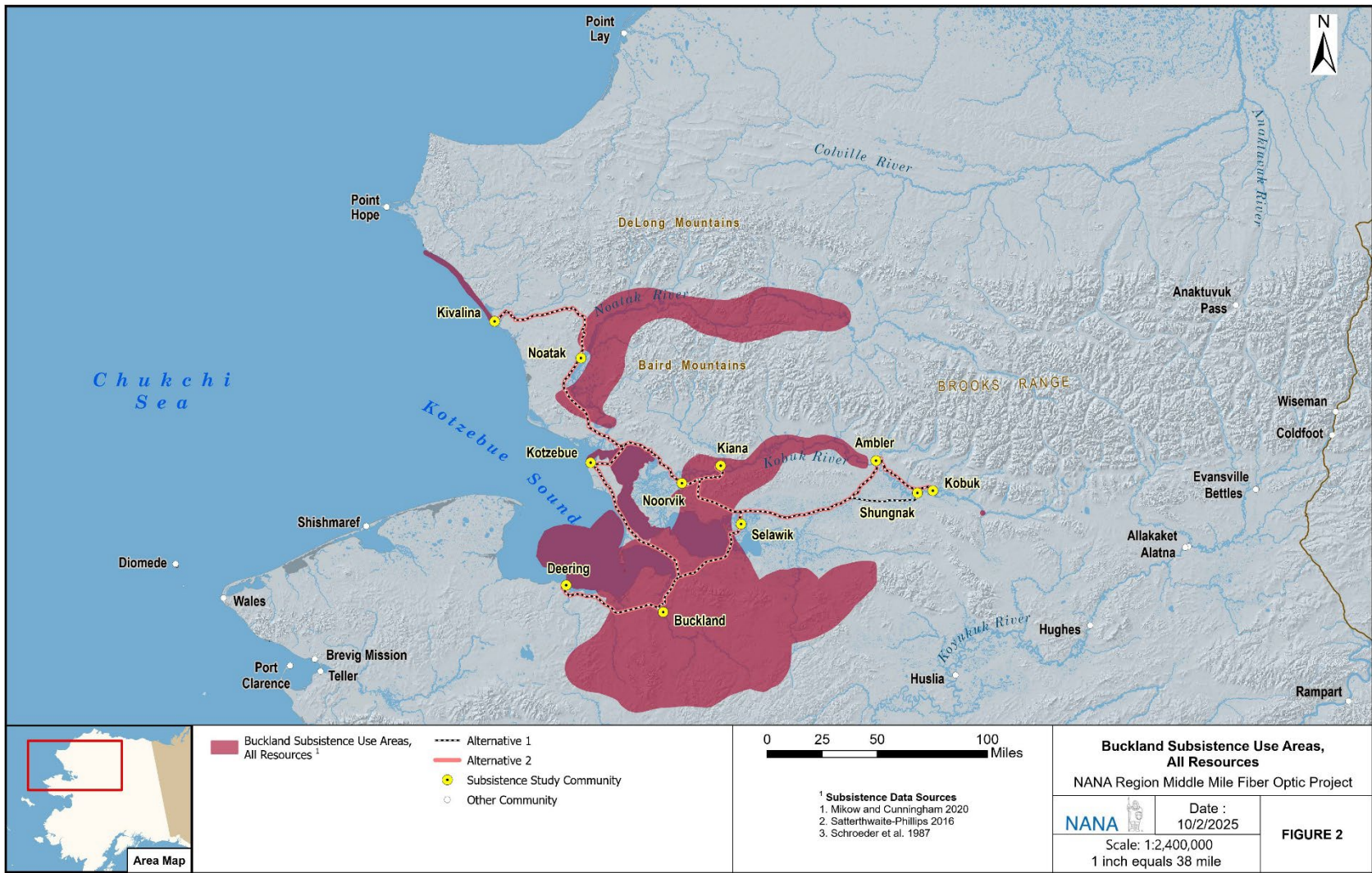
Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
1996	Lesser Canada Geese			33			342	1,362	17	4	
	White-fronted Geese			13			205	867	11	2	
	Northern Pintail			28			407	635	8	2	
	Mallard			33			239	466	6	1	
	Cacklers			33			158	368	5	1	
2003	Caribou	86	61	58	54	48	637	86,660	985	212	38.3%
	Smelt	80	66	65	39	43	143,603	20,105	228	49	8.9%
	Fall Chum	55	31	30	43	25	1,918	11,508	131	28	5.1%

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
Notes: Blank cells indicate no data.											
¹ Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons.											
² Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers).											
For All Resources study years (1983, 1992, 2005), species are listed in descending order by percent of total harvest and are limited to species accounting for at least 1.0 percent of the total harvest; for single-resource study years, species are listed in descending order by total estimated pounds and limited to the five top species. Years lacking "% of total harvest" data were not comprehensive (i.e., all resources) study years.											
Sources: 1996 (Georgette 2000); 2003 (Magdanz et al. 2011); 2009 (Braem 2012a); 2012-14 (Braem et al. 2018); 2016-17 (Gonzalez et al. 2018); 2018 (Mikow and Cunningham 2020).											

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2.2.Subsistence Use Areas

Figure 3: Buckland Subsistence Use Areas, All Resources



2.3. Timing of Subsistence Activities

Figure 4: Buckland Timing of Subsistence Activities

Resources	Ja n	Fe b	Ma r	Ap r	Ma y	Ju n	Ju l	Au g	Se p	Oc t	No v	De c	Most Recent Decade for Subsistence Activity/Harve st Data
Non-Salmon Fish	No Data												
Salmon	No Data												
Caribou													2010s
Moose													2010s
Bear													2010s
Muskox													2010s
Furbearers and Small land mammals													2010s
Marine mammals													2010s
Upland birds	No Data												
Waterfowl	No Data												
Eggs	No Data												
Marine Invertebrates	No Data												
Plants and Berries	No Data												
Wood	No Data												
Sources: Braem (2012); Gonzalez et al. (2018); Mikow and Cunningham (2020)													

3. Deering

3.1. Harvest Data

Table 7: Deering Subsistence Harvest Estimates by Resource Category, All Resources Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
1994	All Resources	100	92	92	92	97	99,121	99,121	2,253	672	100.0%
	Salmon	95	76	76	68	78	5,715	27,000	614	183	27.2%
	Non-Salmon Fish	100	78	78	73	92	6,680	6,680	152	45	6.7%
	Large Land Mammals	95	65	62	57	73	161	27,768	631	188	28.0%
	Small Land Mammals	38	30	30	16	19	78	169	4	1	0.2%
	Marine Mammals	92	49	49	54	76	113	32603	741	221	32.9%
	Migratory Birds	81	62	62	49	57	1113	2915	66	20	2.9%
	Upland Game Birds	49	41	41	30	27	350	350	8	2	0.4%
	Bird Eggs		49	49	0	0	1278	217	5	1	0.2%
	Marine Invertebrates	27	14	14	5	22	27	27	1	0	0.0%
	Vegetation	92	81	81	46	46	1392	1392	32	9	1.4%
2013	All Resources	100	91	84	78	100	84,824	84,824	1,928	663	100.0%
	Salmon	100	72	66	44	56	11,214	11,214	255	88	13.2%
	Non-Salmon Fish	75	50	47	34	63	3,921	3,921	89	31	4.6%
	Large Land Mammals	100	44	38	63	84	56,131	56,131	1,276	439	66.2%
	Small Land Mammals	19	19	16	3	9	179	179	4	1	0.2%
	Marine Mammals	94	38	19	41	84	9324	9324	212	73	0
	Migratory Birds	66	31	31	28	47	1,398	1,398	32	11	1.6%
	Upland Game Birds	19	19	16	9	6	158	158	4	1	0
	Bird Eggs	81	38	31	22	66	388	388	9	3	0
	Marine Invertebrates	19	13	13	3	9	124	124	3	1	0
	Vegetation	94	81	75	53	59	1,989	1,989	45	16	2.3%
Notes: Blank cells indicate no data. ¹ Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons. ² Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). Sources: 1994 (Magdanz, Utermohle, and Wolfe 2002); 2013 (Braem et al. 2018)											

Table 8: Deering Subsistence Harvest Estimates by Resource Category, Non-Comprehensive Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Numbers	Total Pounds	Average HH Pounds	Per Capita Pounds
Large Land Mammals										
2007-08	Large Land Mammals	87	55	45	55	74	185	25,773	548	168
2011-12	Large Land Mammals	93	63	63	77	80	237	32,164	748	206
2017	Large Land Mammals	96	63	57	59	78	347	49,018	925	268
Small Land Mammals										
2007-08	Small Land Mammals	13	16	13	6	3	24	0	0	0
2011-12	Small Land Mammals	13	23	10	10	10	13			
2017	Small Land Mammals	4	4	4	2	0	2	0	0	0
Migratory Birds										
1997-98	Migratory Birds			53			486	1,287	26	8
Upland Game Birds										
1997-98	Upland Game Birds			18			128	128	3	1
Bird Eggs										
1997-98	Bird Eggs			29			1,492	447	9	3
Notes: Blank cells indicate no data.										
Sources: 1997-98 (Georgette 2000); 2007-08 (Braem 2011); 2011-12 (Mikow, Braem, and Kostick 2014); 2017 (Gonzalez, Mikow, and Koster 2020)										

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Table 9: Deering Subsistence Harvest Estimates by Selected Species, All Study Years

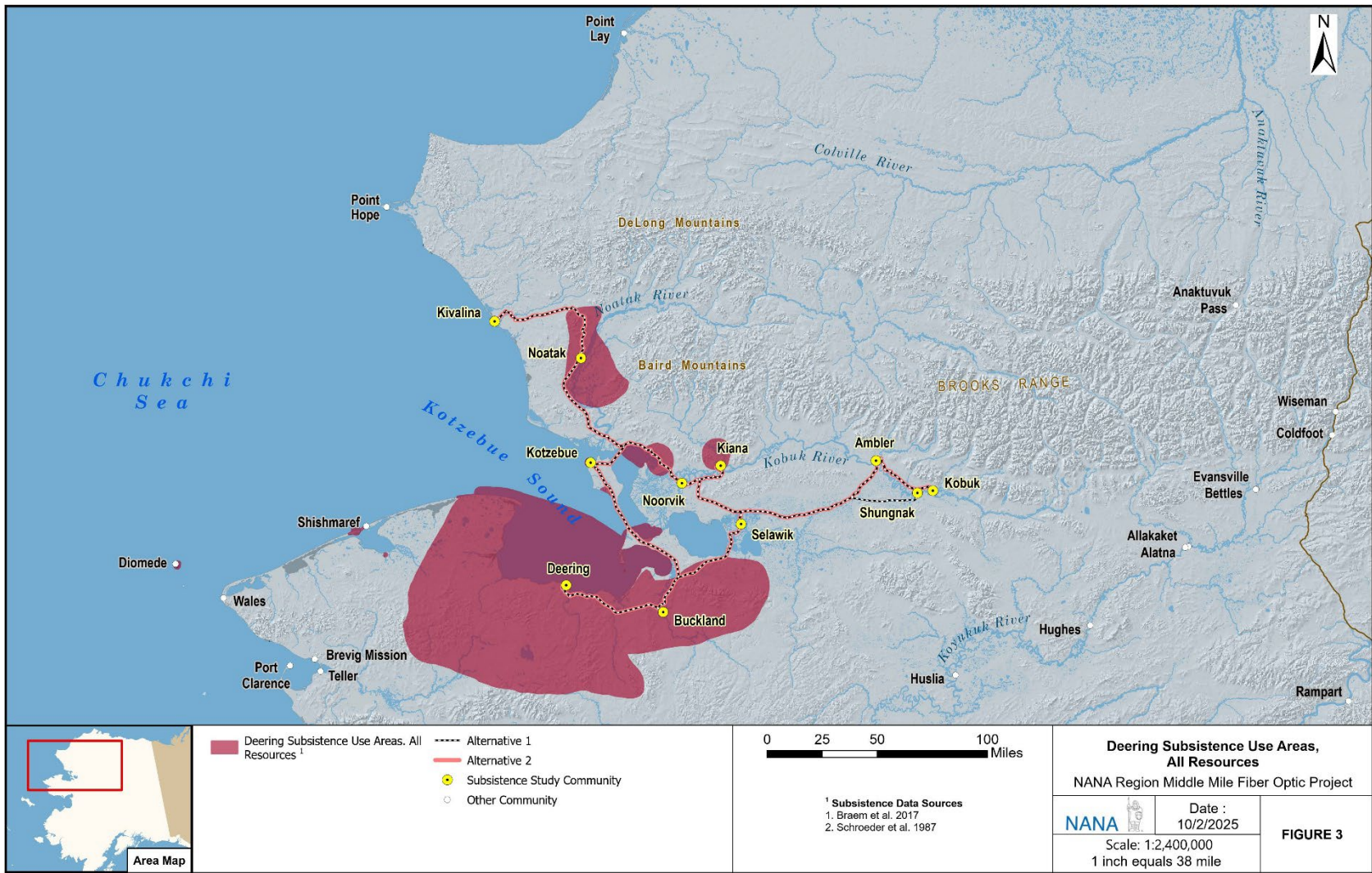
Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
1994	Bearded Seal	92	49	49	49	68	75	28,274	643	192	28.5%
	Chum Salmon	95	70	70	68	68	3,274	19,643	446	133	19.8%
	Caribou	78	57	54	43	57	142	19,246	437	131	19.4%
	Moose	78	41	32	35	54	15	8,317	189	56	8.4%
	Dolly Varden	78	60	60	46	49	1,230	4,058	92	28	4.1%
	Pink Salmon	73	65	65	54	41	1,932	4,057	92	28	4.1%
	Spotted Seal	19	14	14	11	8	29	2,797	64	19	2.8%
	Unknown Salmon	8	8	8	8	0	370	2,219	50	15	2.2%
	Saffron Cod	92	68	68	54	62	6,177	1,297	29	9	1.3%
	Berries	92	81	81	30	35	199	1,291	29	9	1.3%
	Unknown Canada Geese	78	62	62	43	43	313	1,070	24	7	1.1%
1997-98	Canada Geese			47			137	545	11	3	
	Common Murre Eggs			24			746	224	4	1	

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
	Northern Pintail			29			133	207	4	1	
	Glaucous Gull Eggs			16			676	203	4	1	
	Mallard			32			70	136	3	1	
2007-08	Caribou	87	55	45	55	74	182	24,743	526	162	
	Muskox	13	10	3	6	10	2	899	19	6	
	Brown Bear	3	3	3	3	3	2	130	3	1	
2011-12	Caribou	93	63	63	77	77	237	32,164	748	206	
2013	Caribou	100	44	38	56	72	404	54,978	1,250	430	64.8%
	Bearded Seal	78	34	16	31	63	29	8,258	188	65	9.7%
	Chum Salmon	72	50	44	38	41	1,309	6,568	149	51	7.7%
	Pink Salmon	63	44	41	25	31	849	2,718	62	21	3.2%
	Coho Salmon	22	19	16	13	9	327	1,669	38	13	2.0%
	Dolly Varden	47	38	38	19	19	489	1,614	37	13	1.9%
	Sheefish	50	19	13	16	47	176	968	22	8	1.1%
2017	Caribou	93	63	57	59	72	342	46,539	878	254	
	Moose	33	9	7	7	26	5	2,479	47	14	
Notes: Blank cells indicate no data. ¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons. ²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). For All Resources study years (1983, 1992, 2005), species are listed in descending order by percent of total harvest and are limited to species accounting for at least 1.0 percent of the total harvest; for single-resource study years, species are listed in descending order by total estimated pounds and limited to the five top species. Years lacking "% of total harvest" data were not comprehensive (i.e., all resources) study years. Sources: 1994 (Magdanz et al. 2002); 1997-98 (Georgette 2000); 2007-08 (Braem 2011); 2011-12 (Mikow et al. 2014); 2013 (Braem et al. 2018); 2017 (Gonzalez et al. 2020)											

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3.2.Subsistence Use Areas

Figure 5: Deering Subsistence Use Areas, All Resources



3.3. Timing of Subsistence Activities

Figure 6: Deering Timing of Subsistence Activities

Resources	Decade for Subsistence Activity/Harvest Data												Most Recent Decade for Subsistence Activity/Harvest Data
	Ja n	Fe b	Ma r	Ap r	Ma y	Ju n	Ju l	Au g	Se p	Oc t	No v	De c	
Freshwater non-salmon fish	No Data												
Marine non-salmon fish	No Data												
Salmon	No Data												
Caribou													2010s
Moose													2010s
Bear													2010s
Muskox													2010s
Furbearers & Small Land Mammals													2010s
Marine mammals													2010s
Upland birds	No Data												
Waterfowl	No Data												
Eggs	No Data												
Marine Invertebrates	No Data												
Plants and Berries	No Data												
Wood	No Data												
Sources: Braem (2011); Braem, Mikow, Brenner, Godduhn, Retherford, and Kostick (2017); Gonzalez et al. (2020)													

4. Kiana

4.1. Harvest Data

Table 10: Kiana Subsistence Harvest Estimates by Resource Category, All Resources Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
2006	All Resources	99	92	92			24,266	133,211	1,402	347	100.0%
	Salmon	95	64	60			322	50,241	529	131	37.7%
	Non-Salmon Fish	79	68	65			15,962	38,268	403	100	28.7%
	Large Land Mammals	86	66	62			5,546	32,523	342	85	24.4%
	Small Land Mammals	86	73	75			842	5027	53	13	3.8%
	Marine Mammals	70	10	5			6	2590	27	7	1.9%
	Migratory Birds	47	38	38			599	1663	18	4	1.2%
	Upland Game Birds	30	31	27			272	1507	16	4	1.1%
	Bird Eggs	9	4	4			671	1346	14	4	1.0%
	Marine Invertebrates	7	8	5			43	43	1	0	0.0%
	Vegetation	1	1	0			0	0	0	0	0.0%
2021	All Resources	100	90	90	83	100	145,261	145,261	1,424	386	100.0%
	Salmon	98	76	74	74	86	63,817	63,817	626	170	43.9%
	Non-Salmon Fish	98	62	45	74	93	304	45,288	444	120	31.2%
	Large Land Mammals	93	60	50	55	74	5,665	27,713	272	74	19.1%
	Small Land Mammals	98	88	88	60	69	4,398	4,398	43	12	3.0%
	Marine Mammals						1214	2145	21	6	1.5%
	Migratory Birds	90	10	5	48	90	5	1,389	14	4	1.0%
	Upland Game Birds	33	24	19	19	17	114	380	4	1	0.3%
	Bird Eggs						102	85	1	0	0.1%
	Marine Invertebrates						170	46	0	0	0.0%
	Vegetation	7	0	0	2	7	0	0	0	0	0.0%
Notes: Blank cells indicate no data. ¹ Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons. ² Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). Sources: 2006 (Magdanz et al. 2011); 2021 (Lamb, Brown, Cold, and Navarro 2024)											

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Table 11: Kiana Subsistence Harvest Estimates by Resource Category, Non-Comprehensive Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Numbers	Total Pounds	Average HH Pounds	Per Capita Pounds
Salmon										
2012	Salmon	92	55	51	43	86		16,219	158	37
2013	Salmon	90	72	70	28	78		19,099	205	48
2014	Salmon	93	63	61	41	83		18,205	186	46
Non-Salmon Fish										
2012	Non-Salmon Fish	86	66	62	52	75		41,393	402	94
2013	Non-Salmon Fish	82	64	63	25	52		38,501	414	96
2014	Non-Salmon Fish	85	66	66	44	76		39,239	400	99
Large Land Mammals										
1999	Large Land Mammals	97	68	67	57	81	506	71,351	743	187
2009-10	Large Land Mammals	97	68	67	57	81	506	71,351	743	187
Small Land Mammals										
1999	Small Land Mammals	0	0	13	0	0	21	0	0	0
2009-10	Small Land Mammals	0	0	13	0	0	21	0	0	0
Migratory Birds										
1993	Migratory Birds			43			913	2,185	21	6
1996	Migratory Birds			32			874	2,171	20	5
Upland Birds										
1993	Upland Birds			8			168	167	2	0.4
1996	Upland Birds			15			271	244	2	0.6
Bird Eggs										
1993	Bird Eggs	0	0	0	0	0	0	0	0	0
1993	Bird Eggs			0			0	0	0	0
Notes: Blank cells indicate no data.										
Sources: 1993 (Wolfe and Paige 1995); 1996 (Georgette 2000); 1999 (ADF&G 2025); 2009-10 (Braem 2012a); 2012-2014 (Braem et al. 2018)										

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Table 12: Kiana Subsistence Harvest Estimates by Selected Species, All Study Years

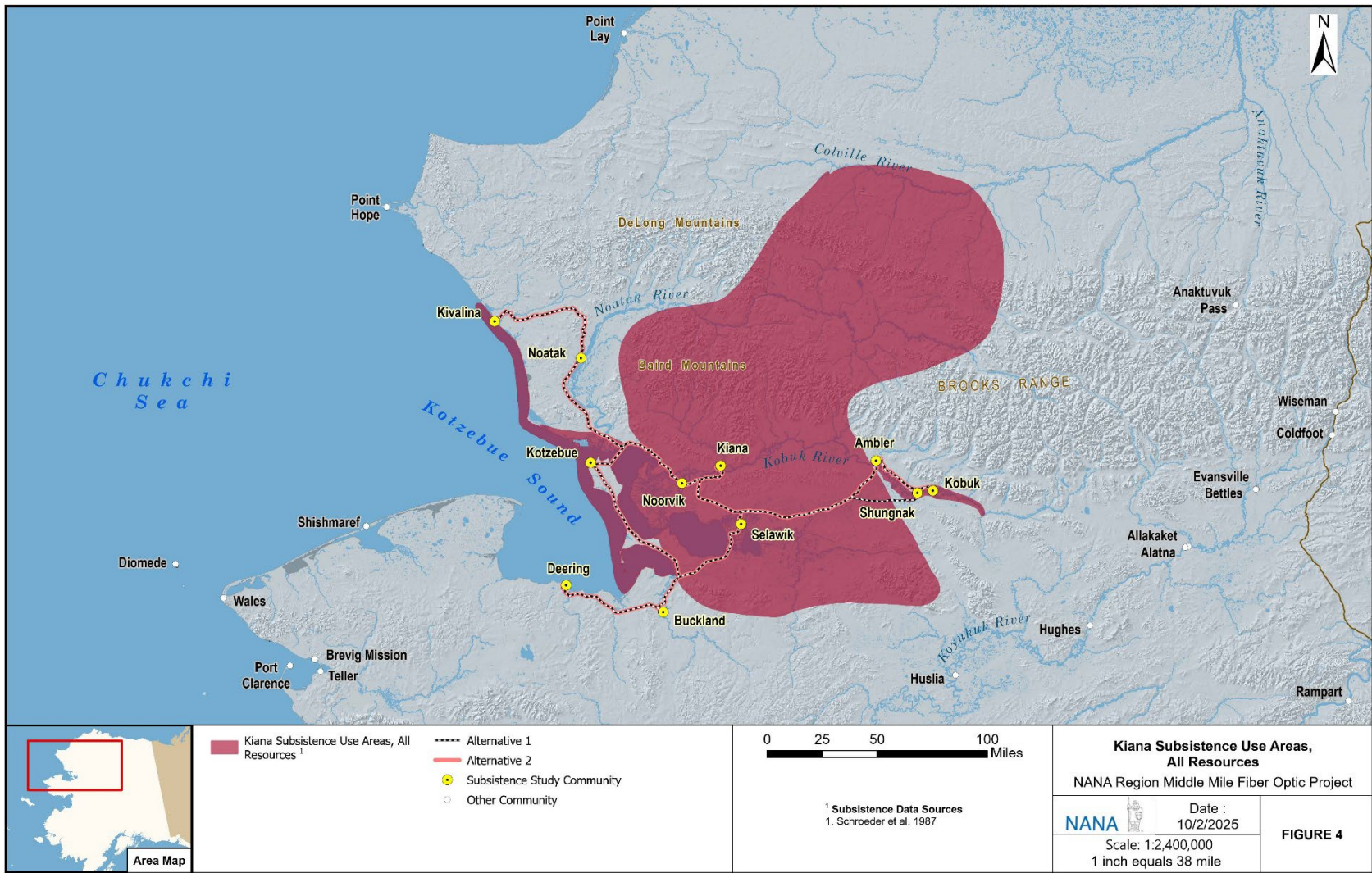
Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
1993	Lesser Canada Geese			29			225	895	9	2	
	Northern Pintail			20			191	298	3	1	
	American Wigeon			22			214	281	3	1	
	White-fronted Geese			8			45	189	2	0	

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
	Sheefish	83	59	59	32	62	1,073	12,228	125	31	
	Humpback whitefish	35	24	24	16	21	4,570	9,596	98	24	
	Northern pike	23	18	18	7	6	419	1,382	14	4	
2021	Caribou	98	60	43	74	76	295	40,061	393	106	27.6%
	Broad whitefish	55	24	24	31	45	9,165	29,327	288	78	20.2%
	Chum salmon	83	60	50	50	57	4,747	24,558	241	65	16.9%
	Sheefish	95	64	62	64	69	1,200	13,365	131	36	9.2%
	Humpback whitefish	21	17	17	21	14	4,555	9,565	94	25	6.6%
	Moose	50	21	10	29	40	10	5,226	51	14	3.6%
	Northern pike	38	33	31	24	17	1,173	3,871	38	10	2.7%
	Unspecified whitefish	10	7	7	7	7	1,190	2,858	28	8	2.0%
	Least cisco	12	10	10	10	10	2,822	1,975	19	5	1.4%
	Blueberry	93	83	81	38	40	412	1,649	16	4	1.1%
	Pink salmon	19	24	19	12	5	624	1,479	14	4	1.0%
	Bearded seal	36	10	5	26	33	5	1,389	14	4	1.0%
Notes: Blank cells indicate no data. ¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons. ²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). For All Resources study years (1983, 1992, 2005), species are listed in descending order by percent of total harvest and are limited to species accounting for at least 1.0 percent of the total harvest; for single-resource study years, species are listed in descending order by total estimated pounds and limited to the five top species. Years lacking "% of total harvest" data were not comprehensive (i.e., all resources) study years. Sources: 1993 (Wolfe and Paige 1995); 1996 (Georgette 2000); 1999 (ADF&G 2025); 2006 (Magdanz et al. 2011); 2009-10 (Braem 2012a); 2012-2014 (Braem et al. 2018); 2021(Lamb et al. 2024)											

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4.2.Subsistence Use Areas

Figure 7: Kiana Subsistence Use Areas, All Resources



4.3. Timing of Subsistence Activities

Figure 8: Kiana Timing of Subsistence Activities

														Most Recent Decade for Subsistence Activity/Harves t Data
Resources	Ja n	Fe b	Ma r	Ap r	Ma y	Ju n	Ju l	Au g	Se p	Oc t	No v	De c		
Fish													1980s	
Caribou													2020s	
Moose													2020s	
Bear													1980s	
Furbearers & Small Land Mammals													2020s	
Marine mammals													2020s	
Upland birds													2010s	
Waterfowl													2010s	
Eggs	No Data													
Marine Invertebrates	No Data													
Plants and Berries													1990s	
Wood													1970s	
Sources: Alaska Department of Fish and Game (1986); Braem (2012a); Lamb, Brown, Cold, and Navarro (2024)														

5. Kivalina

5.1. Harvest Data

Table 13: Kivalina Subsistence Harvest Estimates by Resource Category, All Resources Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
1964	All Resources						233,376	233,376	8,976	1,341	100.0%
	Salmon						998	997	38	6	0.4%
	Non-Salmon Fish						67,547	67,546	2,598	388	28.9%
	Large Land Mammals						257	36,506	1,404	210	15.6%
	Small Land Mammals						25	9	0	0	0.0%
	Marine Mammals						1071	126641	4871	728	54.3%
	Migratory Birds										
	Upland Game Birds										
	Bird Eggs						496	496	19	3	0.2%
	Marine Invertebrates										
	Vegetation						1180	1180	45	7	0.5%
1965	All Resources						269,497	269,497	10,365	1,549	100.0%
	Salmon						81	81	3	0	0.0%
	Non-Salmon Fish						24,605	24,605	946	141	9.1%
	Large Land Mammals						1,016	144,872	5,572	833	53.8%
	Small Land Mammals						49	9	0	0	0.0%
	Marine Mammals						603	99029	3809	569	36.7%
	Migratory Birds										
	Upland Game Birds						16	11	0	0	0.0%
	Bird Eggs						0	0	0	0	0.0%
	Marine Invertebrates										
	Vegetation						677	677	26	4	0.3%
1982	All Resources						210,074	210,074	4,470	778	100.0%
	Salmon						325	325	7	1	0.2%
	Non-Salmon Fish						48,628	48,628	1,035	180	23.1%
	Large Land Mammals						354	51,517	1,096	191	24.5%
	Small Land Mammals						65	12	0	0	0.0%
	Marine Mammals						386	105908	2253	392	50.4%
	Migratory Birds						323	736	16	3	0.4%
	Upland Game Birds						46	32	1	0	0.0%
	Bird Eggs						106	106	2	0	0.1%
	Marine Invertebrates										
	Vegetation						2764	2764	59	10	1.3%

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
Sources: 1964, 1965, 1982, 1983 (ADF&G 2025); 1992 (Fall and Utermohle 1995); 2007 (Magdanz, Braem, Robbins, and Koster 2010)											

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Table 14: Kivalina Subsistence Harvest Estimates by Resource Category, Non-Comprehensive Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Numbers	Total Pounds	Average HH Pounds	Per Capita Pounds
Large Land Mammals										
2010-11	Large Land Mammals	83	70	33	52	76	99	18,574	206	51
Small Land Mammals										
2010-11	Small Land Mammals	16	17	13	11	3	27	0	0	0
Migratory Birds										
1996	Migratory Birds			55			376	1,085	16	3
Upland Birds										
1996	Upland Birds			3			42	42	1	0
Eggs										
1996	Bird Eggs			33			1,413	424	6	1
Notes: Blank cells indicate no data.										
Sources: 1996 (Georgette 2000); 2010-11 (Braem and Kostick 2014)										

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Table 15: Kivalina Subsistence Harvest Estimates by Selected Species, All Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
1964	Char						65,797	65,796	2,531	378	28.2%
	Ringed Seal						908	65,728	2,528	378	28.2%
	Bearded Seal						153	51,355	1,975	295	22.0%
	Caribou						256	36,338	1,398	209	15.6%
	Belukha						6	9,150	352	53	3.9%
1965	Caribou						1,010	144,434	5,555	830	53.6%
	Bearded Seal						119	41,044	1,579	236	15.2%

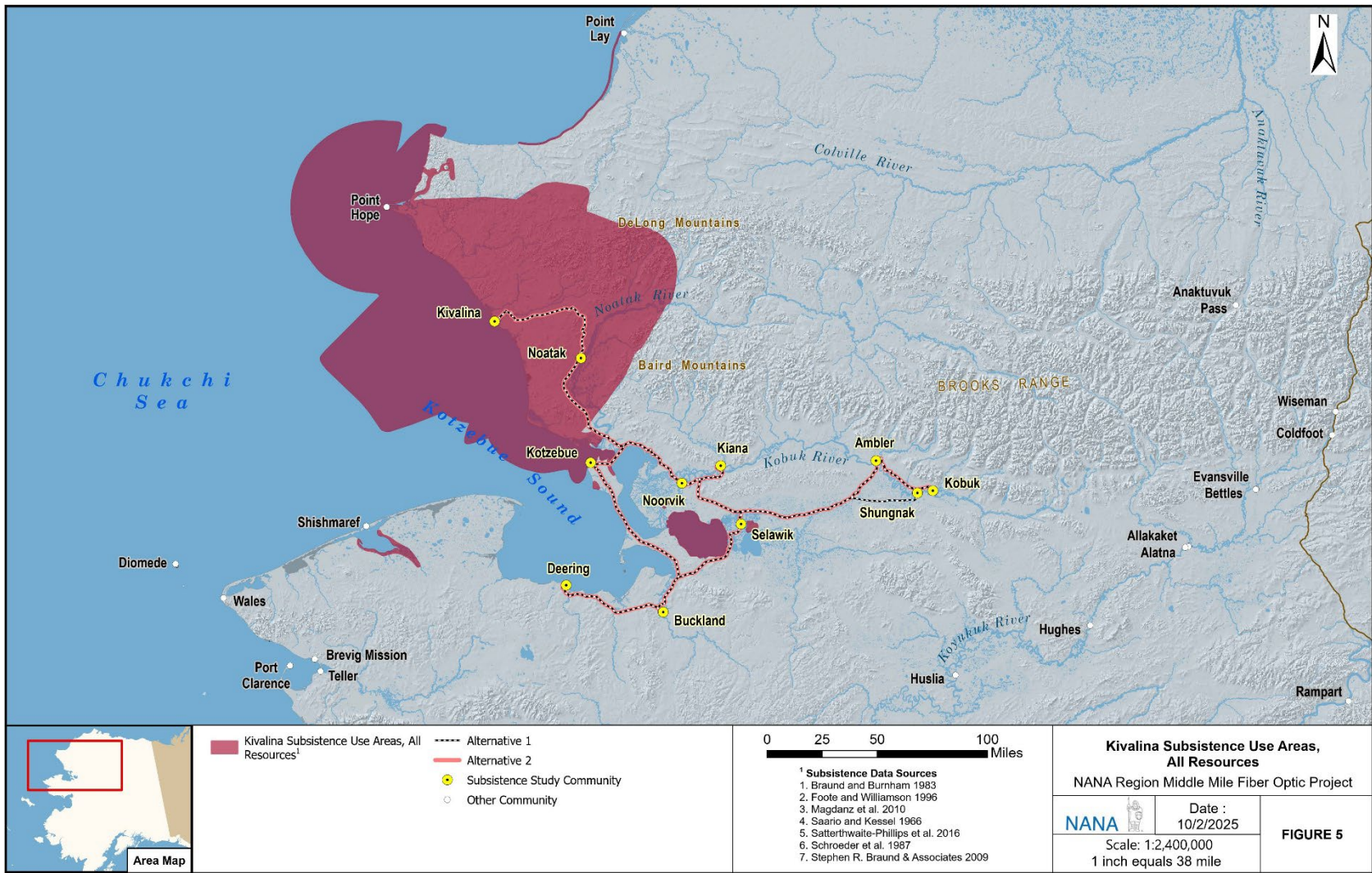
Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
	Ringed Seal						467	35,447	1,363	204	13.2%
	Char						19,698	19,698	758	113	7.3%
	Belukha						12	18,690	719	107	6.9%
	Saffron Cod						4,869	4,869	187	28	1.8%
	Walrus						3	3,270	126	19	1.2%
1982	Char						48,341	48,341	1,029	179	23.0%
	Caribou						346	48,202	1,026	179	22.9%
	Bearded Seal						134	45,760	974	169	21.8%
	Belukha						27	43,050	916	159	20.5%
	Ringed Seal						172	13,070	278	48	6.2%
	Walrus						51	3,825	81	14	1.8%
	Moose						6	3,060	65	11	1.5%
	Berries						2,639	2,639	56	10	1.3%
1983	Caribou						564	76,652	1,631	284	30.2%
	Char						47,927	47,927	1,020	178	18.9%
	Belukha						28	44,910	956	166	17.7%
	Bowhead						1	39,600	843	147	15.6%
	Bearded Seal						60	19,862	423	74	7.8%
	Ringed Seal						109	7,066	150	26	2.8%
	Walrus						4	3,600	77	13	1.4%
	Saffron Cod						3,009	3,009	64	11	1.2%
	Moose						6	2,970	63	11	1.2%
1992	Dolly Varden	100	87	87	65	65	21,149	69,793	969	203	26.7%
	Bearded Seal	90	66	63	45	47	139	53,832	748	157	20.6%
	Caribou	97	77	74	53	68	351	47,539	660	138	18.2%
	Walrus	76	45	37	37	60	28	21,201	294	62	8.1%
	Bowhead	90	65	5	48	89	1	13,250	184	39	5.1%
	Belukha	87	61	26	50	69	10	10,007	139	29	3.8%
	Moose	47	31	23	31	31	17	9,059	126	26	3.5%
	Ringed Seal	50	44	42	27	21	110	7,562	105	22	2.9%
	Berries	95	84	84	53	37	710	4,612	64	13	1.8%
	Chum Salmon	61	44	40	34	34	681	4,178	58	12	1.6%
	Humpback Whitefish	53	42	36	29	24	2,377	4,160	58	12	1.6%
	Saffron Cod	79	74	74	31	24	4,453	3,117	43	9	1.2%
	Arctic Cod	82	77	77	40	23	27,077	2,978	41	9	1.1%
1996	Brant			39			194	443	6	1	
	Common Murre Eggs			21			1,286	386	6	1	
	Lesser Canada Geese			18			73	291	4	1	

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
	White-fronted Geese			9			29	124	2	0	
	Common Eider			9			21	87	1	0	
2007	Bearded Seal	83	64	62	67	64	229	96,188	1,188	224	36.8%
	Trout	93	81	81	67	64	20,527	67,739	836	158	25.9%
	Caribou	93	64	64	67	69	268	36,458	450	85	13.9%
	Belukha	88	52	38	45	76	42	28,285	349	66	10.8%
	Saffron Cod	81	74	74	64	38	25,824	5,294	65	12	2.0%
	Ringed Seal	48	36	33	31	29	71	5,280	65	12	2.0%
	Salmonberry	88	62	62	50	52	490	3,184	39	7	1.2%
2010-11	Caribou	79	67	29	51	73	86	11,657	130	32	
	Moose	49	35	13	22	43	13	6,917	77	19	
Notes: Blank cells indicate no data. ¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons. ²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). For All Resources study years (1994, 2007), species are listed in descending order by percent of total harvest and are limited to species accounting for at least 1.0 percent of the total harvest; for single-resource study years, species are listed in descending order by total estimated pounds and limited to the five top species. Years lacking "% of total harvest" data were not comprehensive (i.e., all resources) study years. Sources: 1964, 1965, 1982, 1983 (ADF&G 2025); 1992 (Fall and Utermohle 1995); 1996 (Georgette 2000); 2007 (Magdanz et al. 2010); 2010-11 (Braem and Kostick 2014)											

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5.2.Subsistence Use Areas

Figure 9: Kivalina Subsistence Use Areas, All Resources



5.3. Timing of Subsistence Activities

Figure 10: Kivalina Timing of Subsistence Activities

	J	F	M	A	M	J	J	A	S	O	N	D	
Resources	a	e	a	p	a	u	u	u	e	c	v	e	Most Recent Decade for Subsistence Activity/Harve st Data
Non-Salmon Fish													2000s
Salmon													2000s
Caribou													2010s
Moose													2000s
Other Large Land Mammals													2000s
Furbearers and Small land mammals													2000s
Marine mammals													2000s
Upland birds													2000s
Waterfowl													2000s
Eggs													2000s
Berries													2000s
Plants and Wood													2000s
Sources: Braund and Burnham (1983); SRB&A (2005); SRB&A (2009); Magdanz et al. (2010)													

6. Kobuk

6.1. Harvest Data

Table 16: Kobuk Subsistence Harvest Estimates by Resource Category, All Resources Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
2012	All Resources	100	100	100	90	100		50,743	1,410	309	100.0%
	Salmon	93	67	67	57	80		15,142	421	92	29.8%
	Non-Salmon Fish	93	80	80	53	70		13,850	385	84	27.2%
	Large Land Mammals	97	73	60	60	80		18,321	509	111	36.1%
	Small Land Mammals	40	40	37	27	17		663	18	4	1.3%
	Marine Mammals	63	0	0	23	63		0	0	0	0.0%
	Migratory Birds	73	40	40	40	57		1,625	45	10	3.2%
	Upland Game Birds	63	50	50	37	33		155	4	1	0.3%
	Bird Eggs	0	0	0	0	0		0	0	0	0.0%
	Marine Invertebrates	0	0	0	0	0		0	0	0	0.0%
	Vegetation	100	87	67	67	80		986	27	6	1.9%

Notes: Blank cells indicate no data.
¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons.
²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers).

Sources: 2012 (Braem et al. 2015).

Table 17: Kobuk Subsistence Harvest Estimates by Resource Category, Non-Comprehensive Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Numbers	Total Pounds	Average HH Pounds	Per Capita Pounds
Salmon										
2013	Salmon	92	67	58	33	54		12,148	392	85
2014	Salmon	68	57	54	29	36		11,454	347	76
Non-Salmon Fish										
2013	Non-Salmon Fish	96	92	88	54	54		49,952	1611	348
2014	Non-Salmon fish	100	89	89	64	71		14,244	432	94
Large Land Mammals										
2004	Large Land Mammals	93	89	68	50	89	154	23,116	826	188
2009	Large Land Mammals	89	89	86	75	68	224	32,415	982	220
Small Land Mammals										
2004	Small Land Mammals	4	4	4	0	0	2	0	0	0
2009	Small Land Mammals	43	36	36	18	25	47	0	0	0
Migratory Birds										
1996	Migratory Birds			56			710	1,937	77	19
Upland Birds										

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Numbers	Total Pounds	Average HH Pounds	Per Capita Pounds
1996	Upland Game Birds			20			83	83	3	1
Bird Eggs										
1996	Bird Eggs			0			0	0	0	0
Notes: Blank cells indicate no data.										
Sources: 1996 (Georgette 2000); 2004 (ADF&G 2025); 2009-10 (Braem 2012a); 2013 (Braem 2012a); 2014 (Braem et al. 2018)										

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Table 18: Kobuk Subsistence Harvest Estimates by Selected Species, All Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				% of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Number ¹	Total Lbs	Average HH Lbs	Per Capita Lbs	
1996	White-fronted Geese		40			145	615	25	6		
	Lesser Canada Geese		44			130	517	21	5		
	Mallard		44			123	240	10	2		
	Northern Pintail		44			128	200	8	2		
	Cacklers		12			52	121	5	1		
2004	Caribou	89	82	61	46	64	134	18,224			
	Moose	64	68	21	21	61	7	3,766			
	Black Bear	50	64	21	21	36	9	774			
	Brown Bear	32	61	14	11	25	4	352			
	Wolf	4	4	4	0	0	1	0			
2009	Caribou	86	86	82	68	50	210	28,531			
	Moose	29	36	18	14	25	6	3,170			
	Beaver	32	25	25	11	18	28	0			
	Red Fox	14	14	7	4	7	9	0			
	Brown Bear	18	18	18	18	4	6	507			
2012	Caribou	93	67	57	57	73	119	16,173	449	98	31.8%
	Chum Salmon	90	67	67	53	73	2,637	14,988	416	91	29.5%
	Sheefish	90	73	73	43	53	1,062	11,833	329	72	23.3%
	Moose	50	30	10	13	43	4	1,937	54	12	3.8%
	Broad Whitefish	23	13	13	7	13	286	914	25	6	1.8%
	Beaver	27	23	20	17	10	56	624	18	4	1.2%
2013	Chum salmon	92	67	58	33	54	2,043	12,097	390	84	
	Sheefish	92	83	79	38	25	865	9,866	318	69	
	Broad whitefish	46	33	33	13	21	1,337	4,278	138	30	
	Humpback whitefish	50	42	42	13	25	1,382	2,903	94	20	
	Northern pike	46	38	38	4	8	61	200	7	1	
2014	Sheefish	100	86	86	46	50	781	8,898	270	59	

Study Year	Resource	Percentage of Households					Estimated Harvest				% of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Number ¹	Total Lbs	Average HH Lbs	Per Capita Lbs	
	Humpback whitefish	57	46	46	46	50	2,251	4,727	143	31	
	Chum salmon	68	57	54	29	36	1,840	11,436	347	76	
	Arctic grayling	57	50	50	19	22	231	208	6	1	
	Northern pike	36	32	32	4	14	55	181	6	1	

Notes: Blank cells indicate no data.

¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons.

²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers).

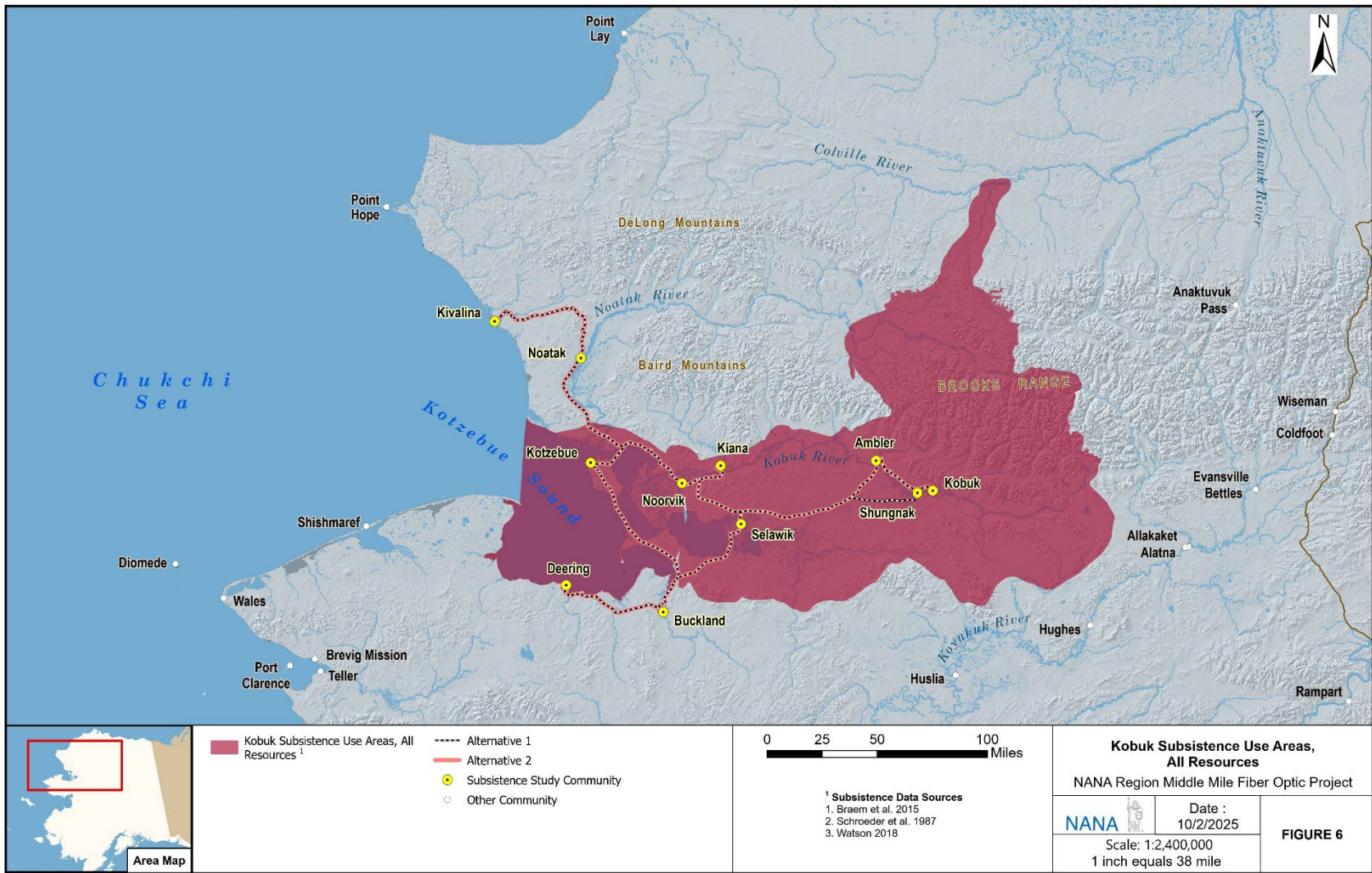
For All Resources study years (2012), species are listed in descending order by percent of total harvest and are limited to species accounting for at least 1.0 percent of the total harvest; for single-resource study years, species are listed in descending order by total estimated pounds and limited to the five top species. Years lacking "% of total harvest" data were not comprehensive (i.e., all resources) study years.

Sources: 1996 (Georgette 2000); 2004 (ADF&G 2025); 2009-10 (Braem 2012a); 2012 (Braem et al. 2015); 2013 (Braem et al. 2018); 2014 (Braem et al. 2018)

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6.2.Subsistence Use Areas

Figure 11: Kobuk Subsistence Use Areas, All Resources



6.3. Timing of Subsistence Activities

Figure 12: Kobuk Timing of Subsistence Activities

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Most Recent Decade for Subsistence Activity/Harvest Data
Fish													1970s
Caribou													2010s
Moose													2010s
Bear													2010s
Sheep	No Data												
Furbearers & Small Land Mammals													2010s
Marine mammals													
Upland birds													1970s
Waterfowl													1970s
Eggs	No Data												
Marine Invertebrates	No Data												
Plants and Berries													1970s
Wood													1970s
Sources: Anderson, Anderson, Bane, Nelson, and Towarak (1998) (Data are for "Lower Kobuk" and are only included for resources where no other data are available); Braem (2012a); Braem, Mikow, Wilson, and Kostick (2015)													

7. Kotzebue

7.1. Harvest Data

Table 19: Kotzebue Subsistence Harvest Estimates by Resource Category, All Resources Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
1986	All Resources	100	78	78	72	96		1,067,280	1,395	398	100.0%
	Salmon	85	51	49	30	44	32,128	195,981	256	73	18.4%
	Non-Salmon Fish	86	72	72	51	71	206,250	236,479	309	88	22.2%
	Large Land Mammals	88	51	49	48	67	2,027	299,709	392	112	28.1%
	Small Land Mammals	45	21	17	10	32	1994	3643	5	1	0.3%
	Marine Mammals	64	23	18	24	60	1231	293114	383	109	27.5%
	Migratory Birds	52	39	39	20	17	6259	13869	18	5	1.3%
	Upland Game Birds	41	34	32	13	16	3097	2168	3	1	0.2%
	Bird Eggs	16	8	8	7	8	6577	1250	2	0	0.1%
	Marine Invertebrates	13	3	3	2	11	1248	315	0	0	0.0%
	Vegetation	81	58	58	25	41		20739	27	8	1.9%
1991	All Resources	99	97	95	84	94		2,163,033	2,674	593	100.0%
	Salmon	90	53	51	42	68	45,489	274,202	339	75	12.7%
	Non-Salmon Fish	96	84	83	65	80		593,152	733	163	27.4%
	Large Land Mammals	94	72	67	61	72	4,065	644,967	797	177	29.8%
	Small Land Mammals	28	18	17	8	15	2,273	2,511	3	1	0.1%
	Marine Mammals	77	40	37	43	72		575419	711	158	0
	Migratory Birds	50	37	35	20	23	5,501	6,371	8	2	0.3%
	Upland Game Birds	54	44	42	29	16	7977	5584	7	2	0
	Bird Eggs	24	19	17	9	8	5275	852	1	0	0
	Marine Invertebrates	27	7	7	5	23	723	722	1	0	0
	Vegetation	92	85	84	52	58		59,207	73	16	2.7%
2014	All Resources	99	88	86	82	96		606,003	734	203	100.0%
	Salmon	90	45	44	46	69		137,586	167	46	22.7%
	Non-Salmon Fish	93	65	63	59	78		115,534	140	39	19.1%
	Large Land Mammals	89	44	33	53	81		222,115	269	74	36.7%
	Small Land Mammals	13	9	8	2	7		531	1	0	0.1%
	Marine Mammals	78	15	12	41	77		91,033	110	31	15.0%
	Migratory Birds	41	18	17	18	30		10,218	12	3	1.7%
	Upland Game Birds	17	14	12	8	7		954	1	0	0.2%
	Bird Eggs	34	14	13	14	24		1,698	2	1	0.3%
	Marine Invertebrates	44	7	7	11	39		10487	13	4	1.7%

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
	Vegetation	89	74	74	41	51		15,848	19	5	2.6%
Notes: Blank cells indicate no data. ¹ Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons. ² Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). Sources: 1986 (Georgette and Loon 1993); 1991 (Magdanz et al. 1995); 2014 (Braem et al. 2017)											

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Table 20: Kotzebue Subsistence Harvest Estimates by Resource Category, Non-Comprehensive Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Numbers	Total Pounds	Average HH Pounds	Per Capita Pounds
Large Land Mammals										
2012-13	Large Land Mammals	85	46	40	51	69	1,887	284,825	349	93
2013-14	Large Land Mammals	87	45	35	44	76	1,769	269,624	323	88
Small Land Mammals										
2012-13	Small Land Mammals	3	4	4	1	0	53	0	0	0
2013-14	Small Land Mammals	6	6	2	2	4	39	0	0	0
Migratory Birds										
1997	Migratory Birds			58			8,048	22,479	29	7
2012	Migratory Birds						2,999	7,765		
Upland Birds										
1997	Upland Birds			37				5,530	7	2
2012	Upland Birds						1,438	1,436		
Eggs										
1997	Bird Eggs			24			6,837	1,990	3	1
2012	Bird Eggs						5,896			
Notes: Blank cells indicate no data.										
Sources: 1997 (Georgette 2000); 2012 (Naves and Braem 2014); 2012-13 (Godduhn et al. 2014); 2013-14 (Mikow and Kostick 2016)										

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Table 21: Kotzebue Subsistence Harvest Estimates by Selected Species, All Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
1986	Caribou	88	50	45	40	58	1,917	260,645	341	97	24.4%
	Bearded Seal	47	20	15	14	34	443	185,871	243	69	17.4%
	Sheefish	76	45	43	33	50	23,742	130,580	171	49	12.2%
	Moose	42	27	8	7	34	65	34,721	45	13	3.3%
	Ringed Seal	17	10	10	5	7	440	32,580	43	12	3.1%
	Trout	59	38	33	16	29	7,503	24,759	32	9	2.3%
	Belukha	19	13	3	5	17	20	20,165	26	8	1.9%
	Spotted Seal	9	7	6	3	3	201	19,737	26	7	1.8%
	Berries	81	57	57	21	40	19,139	19,139	25	7	1.8%
	Pike	43	31	30	12	17	5,750	18,976	25	7	1.8%
	Whitefish	55	21	21	9	39	9,594	16,789	22	6	1.6%
	Saffron Cod	43	32	31	22	13	67,233	14,119	18	5	1.3%
	Walrus	5	5	1	2	5	15	11,807	15	4	1.1%
	Flounder	10	7	7	1	2	10,678	11,746	15	4	1.1%
1991	Caribou	93	70	63	59	62	3,782	514,362	636	141	23.8%
	Sheefish	85	60	60	47	50	77,571	426,642	527	117	19.7%
	Bearded Seal	63	36	32	34	39	963	404,338	500	111	18.7%
	Chum Salmon	86	51	49	40	63	44,283	266,586	330	73	12.3%
	Moose	62	33	27	23	45	235	126,220	156	35	5.8%
	Ringed Seal	28	16	16	13	13	914	67,649	84	19	3.1%
	Dolly Varden ³	79	43	42	33	56	20,165	66,543	82	18	3.1%
	Berries	92	84	83	48	54	8,664	56,319	70	15	2.6%
	Spotted Seal	12	9	9	8	4	251	24,577	30	7	1.1%
	Saffron Cod	66	56	56	42	26	101,900	21,399	26	6	1.0%
	Herring	45	36	35	24	17	3,562	21,371	26	6	1.0%
1997	Canada Geese			51			2,462	7,719	10	2	
	White-fronted Geese			25			1,421	6,027	8	2	
	Willow Ptarmigan			37			5,288	5,288	7	2	
	Mallard			20			997	1,944	3	1	
	Northern Pintail			20			868	1,355	2	0	
2012	Cackling/Canada goose						596	2,038			
	Ptarmigan						1,430	1,430			
	Black brant						596	1,359			
	Greater white-fronted goose						287	1,217			
	Northern pintail						464	724			
2012-13	Caribou	82	44	39	49	59	1,804	245,287	301	80	
	Moose	37	18	9	12	29	72	38,569	47	13	

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
	Brown Bear	2	2	1	0	1	11	969	1	0	
2013-14	Caribou	84	43	34	42	71	1,680	228,438	274	75	
	Moose	44	15	8	15	36	74	39,837	48	13	
	Brown bear	2	3	1	1	1	12	1,006	1	0	
	Black bear	1	2	1	1	1	4	343	0	0	
2014	Caribou	84	39	29	47	72	1,286	174,823	212	59	28.8%
	Chum Salmon	83	43	42	41	58	21,144	131,432	159	44	21.7%
	Sheefish	84	57	52	44	55	17,322	95,270	115	32	15.7%
	Bearded Seal	55	13	11	28	47	65,131	65,131	79	22	10.7%
	Moose	52	22	9	22	46	81	43,608	53	15	7.2%
	Spotted Seal	9	3	2	5	7	143	13,996	17	5	2.3%
	King Crab	44	7	7	11	39	4,941	10,487	13	4	1.7%
	Blueberry	83	67	66	29	36	1,758	7,032	9	2	1.2%
	Dolly Varden	44	19	18	14	32	2,116	6,983	9	2	1.2%
Notes: Blank cells indicate no data. ¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons. ²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). ³Referred to in some studies as char or trout For All Resources study years (1986, 1991, 2014), species are listed in descending order by percent of total harvest and are limited to species accounting for at least 1.0 percent of the total harvest; for single-resource study years, species are listed in descending order by total estimated pounds and limited to the five top species. Years lacking "% of total harvest" data were not comprehensive (i.e., all resources) study years. Sources: 1986 (Georgette and Loon 1993); 1991 (Magdanz et al. 1995); 1997 (Georgette 2000); 2012 (Naves and Braem 2014); 2012-13 (Godduhn et al. 2014); 2013-14 (Mikow and Kostick 2016); 2014 (Braem et al. 2017)											

7.2.Subsistence Use Areas

Figure 13: Kotzebue Subsistence Use Areas, All Resources

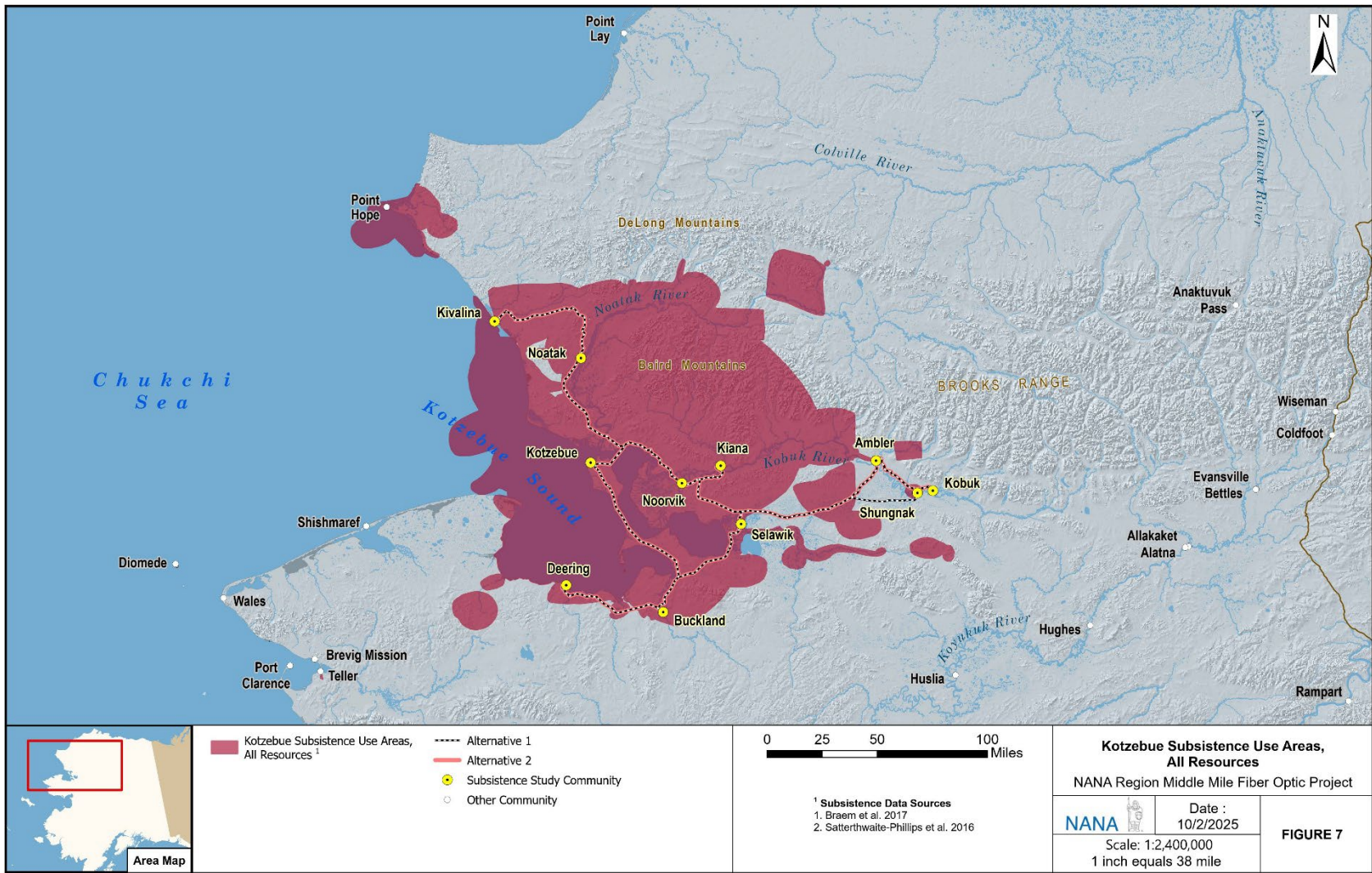


Figure 14: Kotzebue Timing of Subsistence Activities

	J	F	M	A	M	J	J	A	S	O	N	D	Most Recent Decade for Subsistence Activity/Harves t Data
Resources	a	e	a	p	a	u	u	u	e	c	v	e	
Non-Salmon Fish													1980s
Salmon													1980s
Caribou													2010s
Moose													2010s
Bear													2010s
Other Large Land Mammals													2010s
Furbearers and Small Land Mammals													2010s
Marine Mammals													2010s
Upland birds													2000s
Waterfowl													2000s
Eggs													2000s
Marine Invertebrates	No Data												2000s
Berries													1980s
Plants and Wood													1980s
Sources: Georgette and Loon (1993); SRB&A (2005); Godduhn, Braem, and Kostick (2014); Mikow and Kostick (2016); Braem et al. (2018)													

Study Year	Percentage of Households					Estimated Harvest			
	Use	Try to Harvest	Harvest	Give	Receive	Numbers	Total Pounds	Average HH Pounds	Per Capita Pounds
2012	93	84	78	57	59		48,023	381	80
2013	93	79	77	57	69		39,304	314	73
2014	95	83	82	62	70		51,169	409	93
Non-Salmon Fish									
2012	96	77	70	58	84		29,307	233	49
2013	97	80	50	65	85		18,057	145	34
2014	91	74	74	60	73		38,261	306	69
Large Land Mammals									
1999	96	74	72	62	63	691	95,553	965	230
2002	94	76	71	63	72	414	57,707	571	124
2010-11	81	45	23	32	74	87	14,899	130	27
2011-12	96	65	52	54	84	380	56,869	455	104
2016-17	97	70	52	57	85	348	50,824	397	89
Small Land Mammals									
1999	0	0	8	0	0	38	0	0	0
2002	5	5	5	0	0	16	0	0	0
2010-11	9	10	8	4	4	18	0	0	0
2011-12	20	25	14	5	8	64	212	2	0
2016-17	1	6	1	1	1	1	0	0	0
Migratory Birds									
1997	55				656	1,813	19	4	
Upland Birds									
1997		18				380	377	4	1
Eggs									
1997		24				569	159	2	0
Notes: Blank cells indicate no data.									
Sources: 1997 (Georgette 2000); 1999, 2002 (ADF&G 2025); 2010-11 (Braem and Kostick 2014); 2011-12 (Mikow et al. 2014); 2012-2014 (Braem et al. 2018); 2016-17 (Gonzalez et al. 2018)									

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Table 24: Noatak Subsistence Harvest Estimates by Selected Species, All Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
1994	Caribou	84	84	91	71	50	615	83,664	996	221	47.8%
	Chum Salmon	60	60	68	46	35	7,198	43,190	514	114	24.7%
	Dolly Varden	81	79	87	75	38	4,629	15,276	182	40	8.7%

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
	Bearded Seal	24	18	44	25	32	36	14,142	168	37	8.1%
	Humpback Whitefish	18	16	22	16	10	1,684	3,537	42	9	2.0%
	Belukha	7	6	18	13	15	3	2,985	36	8	1.7%
	Berries	59	59	66	28	37	256	1,666	20	4	1.0%
1997	Canada Geese		47				214	814	8	2	
	White-fronted Geese		16				82	346	4	1	
	Willow Ptarmigan		18				329	329	3	1	
	Mallard		16				100	194	2	0	
	Northern Pintail		21				107	167	2	0	
1999	Caribou	96	74	72	61	62	683	92,902	938	224	
	Moose	18	4	3	4	14	4	2,367	24	6	
	Brown Bear	2	2	2	2	0	3	284	3	1	
	Black Bear	1	0	0	0	1	0	0	0	0	
	Wolf			4			15	0	0	0	
2002	Caribou	91	76	71	61	64	410	55,733	552	120	
	Moose	22	8	3	6	20	3	1,874	19	4	
	Brown Bear	2	1	1	1	1	1	100	1	0	
	Wolf	2	2	2	0	0	7	0	0	0	
	Wolverine	-9	2	2	-9	-9	9	0	0	0	
2007	Caribou	97	73	66	78	88	442	60,061	505	114	31.4%
	Trout	91	83	78	72	78	10,234	32,180	270	61	16.8%
	Bearded Seal	81	20	20	54	79	60	24,990	210	47	13.0%
	Chum Salmon	93	78	76	71	74	4,167	24,724	208	47	12.9%
	Whitefish	61	39	38	37	54	6,778	14,234	120	27	7.4%
	Belukha	81	8	4	60	81	8	7,633	64	15	4.0%
	Moose	46	16	9	27	46	11	5,691	48	11	3.0%
	Blueberry	99	88	88	81	72	657	4,268	36	8	2.2%
	Salmonberry	92	69	68	69	71	410	2,666	22	5	1.4%
	Walrus	23	2	1	13	23	3	1,851	16	4	1.0%
2010-11	Caribou	56	21	21	4	45	66	8,937	78	16	
	Moose	27	12	5	9	23	9	4,821	42	9	
	Dall Sheep	6	3	3	3	5	7	747	6	1	
	Brown Bear	3	3	3	1	0	4	394	3	1	
	Wolf	6	8	4	1	1	6	0	0	0	
2011-12	Caribou	95	62	50	51	78	360	48,918	391	90	
	Moose	32	24	9	13	25	14	7,310	59	13	
	Dall sheep	5	3	2	1	3	4	408	3	1	
	Brown bear	7	8	2	0	4	3	234	2	0	

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
	Beaver	12	15	9	3	4	30	212	2	0	
2012	Chum salmon	93	84	78	57	55	7,814	44,406	352	74	
	Dolly Varden	95	77	68	56	76	6,054	19,978	159	33	
	Broad whitefish	28	17	17	17	19	1,826	5,844	46	10	
	Coho salmon	5	4	4	2	2	612	2,969	24	5	
	Humpback whitefish	11	10	10	5	8	1,205	2,531	20	4	
2013	Chum salmon	90	77	75	55	66	5,655	33,477	268	62	
	Dolly Varden	97	77	43	60	81	3,220	10,627	85	20	
	Broad whitefish	52	38	25	30	30	1,924	6,157	49	12	
	Coho salmon	34	26	25	21	17	1,233	5,704	46	11	
	Humpback whitefish	9	7	7	6	2	337	708	6	1	
2014	Chum salmon	88	77	76	59	61	6,577	40,881	327	74	
	Dolly Varden	87	72	71	54	64	9,289	30,655	245	55	
	Coho salmon	29	23	22	16	18	1,859	9,554	76	17	
	Broad whitefish	23	18	17	10	13	879	2,811	23	5	
	Humpback whitefish	12	10	10	8	9	1,165	2,447	20	4	
2016-17	Caribou	96	70	51	56	84	337	45,783	358	80	
	Moose	24	15	6	9	24	9	4,821	38	8	
	Brown bear	2	3	2	0	0	3	220	2	0	
	Wolf	1	6	1	1	1	1	0	0	0	
	Wolverine	0	5	0	0	0	0	0	0	0	
Notes: Blank cells indicate no data. ¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons. ²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). For All Resources study years (1994, 2007), species are listed in descending order by percent of total harvest and are limited to species accounting for at least 1.0 percent of the total harvest; for single-resource study years, species are listed in descending order by total estimated pounds and limited to the five top species. Years lacking "% of total harvest" data were not comprehensive (i.e., all resources) study years. Sources: 1994 (ADF&G 2025); 1997 (Georgette 2000); 1999, 2002 (ADF&G 2025); 2007 (Magdanz et al. 2010); 2010-11 (Braem and Kostick 2014); 2011-12 (Mikow et al. 2014); 2012-2014 (Braem et al. 2018); 2016-17 (Gonzalez et al. 2018)											

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8.2.Subsistence Use Areas

Figure 15: Noatak Subsistence Use Areas, All Resources

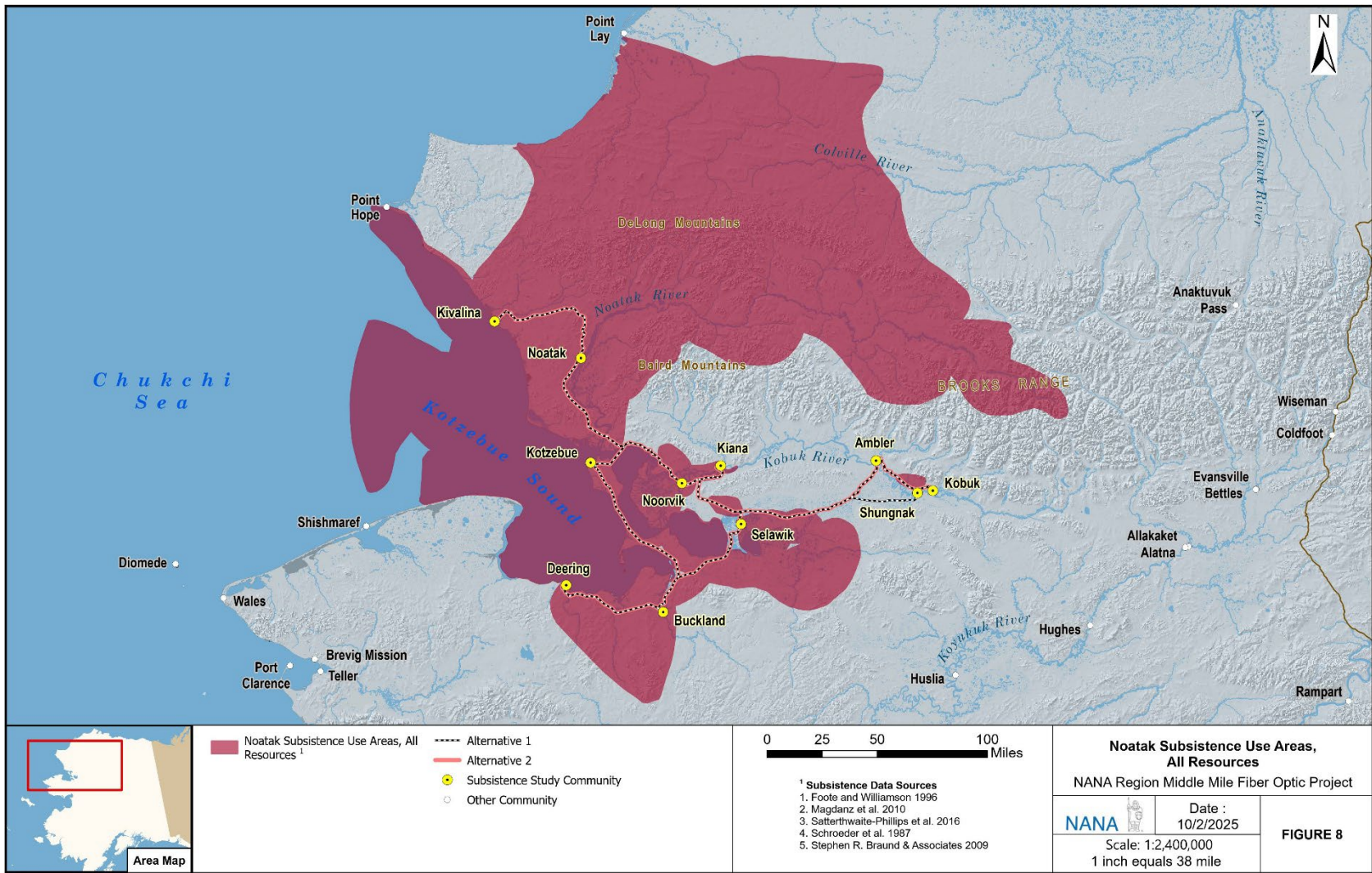


Figure 16: Noatak Timing of Subsistence Activities

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Most Recent Decade for Subsistence Data
Resources													
Non-Salmon Fish													2000s
Salmon													2000s
Caribou													2010s
Moose													2010s
Bear													2000s
Muskox													2000s
Sheep													2000s
Furbearers and Small Land Mammals													2000s
Marine mammals													2000s
Upland birds													2000s
Waterfowl													2000s
Eggs													2000s
Berries													2000s
Plants and Wood													2000s
Sources: SRB&A (2009); Uhl and Uhl (1979); Magdanz et al. (2010); Braem and Kostick (2014); Mikow et al. (2014); Gonzalez et al. (2018).													

9. Noorvik

9.1. Harvest Data

Table 25: Noorvik Subsistence Harvest Estimates by Resource Category, All Resources Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
2012	All Resources	100	94	93	75	96	353,142	353,142	2,616	603	100.0%
	Salmon	99	69	66	51	84	135,861	135,861	1,006	232	38.5%
	Non-Salmon Fish	96	61	60	51	78	130,019	130,019	963	222	36.8%
	Large Land Mammals	71	11	10	20	67	9,336	9,336	69	16	2.6%
	Small Land Mammals	90	40	40	37	60	60326	60326	447	103	17.1%
	Marine Mammals	90	86	86	40	54	5837	5837	43	10	1.7%
	Migratory Birds	83	54	52	35	53	7177	7177	53	12	2.0%
	Upland Game Birds	51	40	37	27	25	3731	3731	28	6	1.1%
	Bird Eggs	37	29	28	13	12	455	455	3	1	0.1%
	Marine Invertebrates	7	1	1	0	7	10	10	0	0	0.0%
	Vegetation	20	20	17	6	5	391	391	3	1	0.1%
Notes: Blank cells indicate no data. ¹ Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons. ² Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). Sources: 2012 (Braem et al. 2017)											

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Table 26: Noorvik Subsistence Harvest Estimates by Resource Category, Non-Comprehensive Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Numbers	Total Pounds	Average HH Pounds	Per Capita Pounds
Salmon										
2013	Salmon	92	49	48	43	72		124,630	944	219
2014	Salmon	89	53	50	47	74		109,888	886	199
Non-Salmon Fish										
2013	Non-Salmon Fish	96	75	72	65	80		148,400	1,124	261
2014	Non-Salmon Fish	92	66	65	53	79		122,722	990	223
Large Land Mammals										
2002	Large Land Mammals	97	76	75	63	77	1,063	166,326	1,080	225
2008	Large Land Mammals	95	71	71	37	70	794	117,717	817	196
2017	Large Land Mammals	96	63	48	47	85	291	53,783	404	102
Small Land Mammals										
2002	Small Land Mammals	5	5	5	0	0	180	0	0	0
2008	Small Land Mammals	15	15	7	2	4	317	0	0	0

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Numbers	Total Pounds	Average HH Pounds	Per Capita Pounds
2017	Small Land Mammals	4	2	2	2	1	3	0	0	0
Migratory Birds										
1996	Migratory Birds			78			4,052	9,178	76	15
Upland Game Birds										
1996	Upland Game Birds			24			1,114	1,108	9	2
Bird Eggs										
1996	Bird Eggs			5			392	114	1	0
Notes: Blank cells indicate no data.										
Sources: 1996 (Georgette 2000); 2002 (ADF&G 2025); 2008 (Braem 2012a); 2013, 2014 (Braem et al. 2018); 2017 (Gonzalez et al. 2020)										

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Table 27: Noorvik Subsistence Harvest Estimates by Selected Species, All Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
1996	White-fronted Geese			59			394	1,670	14	3	
	Mallard			59			833	1,624	13	3	
	Willow Ptarmigan			24			1,085	1,085	9	2	
	Lesser Canada Geese			37			207	824	7	1	
	Cacklers			42			326	760	6	1	
2002	Caribou	95	72	71	60	59	988	134,373	873	182	
	Moose	68	44	28	29	54	56	30,352	197	41	
	Black Bear	22	20	5	5	18	14	1,208	8	2	
	Brown Bear	15	16	3	3	13	5	393	3	1	
2008-9	Caribou	94	70	70	37	56	767	104,289	724	174	
	Moose	37	18	15	7	23	25	13,227	92	22	
	Brown Bear	2	6	2	0	0	2	201	1	0	
2012	Caribou	95	60	59	47	65	851	115,758	857	198	32.8%
	Sheefish	78	49	47	31	52	6,032	67,197	498	115	19.0%
	Chum Salmon	86	39	39	36	54	9,584	57,506	426	98	16.3%
	Broad Whitefish	81	47	47	35	53	10,087	32,279	239	55	9.1%
	Northern Pike	67	43	43	24	34	5,134	16,941	125	29	4.8%
	Humpback Whitefish	58	34	34	25	29	6,406	13,453	100	23	3.8%
	Moose	66	23	17	19	52	24	13,126	97	22	3.7%
	Bearded Seal	36	7	7	11	30	18	7,514	56	13	2.1%
	Burbot	67	45	42	19	37	876	3,681	27	6	1.0%
2013	Chum salmon	92	49	48	43	71	19,972	118,234	896	208	

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
	Broad whitefish	83	47	43	38	53	14,375	46,000	349	81	
	Sheefish	83	60	57	40	49	3,167	36,100	274	63	
	Humpback whitefish	42	27	27	25	18	15,944	33,484	254	59	
	Northern pike	58	41	39	27	24	7,932	26,176	198	46	
2014	Chum salmon	89	53	50	47	73	16,668	103,606	836	188	
	Sheefish	84	59	58	37	60	2,964	33,794	273	61	
	Broad whitefish	70	42	37	26	53	11,728	37,531	303	68	
	Burbot	56	35	32	19	42	306	1,286	10	2	
	Dolly Varden	44	24	22	9	29	260	857	7	2	
2017	Caribou	94	59	40	40	80	250	34,005	256	65	
	Moose	54	38	23	25	45	36	19,320	145	37	
	Brown Bear	7	5	4	4	3	5	458	3	1	
Notes: Blank cells indicate no data. ¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons. ²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). For All Resources study years (1983, 1992, 2005), species are listed in descending order by percent of total harvest and are limited to species accounting for at least 1.0 percent of the total harvest; for single-resource study years, species are listed in descending order by total estimated pounds and limited to the five top species. Years lacking "% of total harvest" data were not comprehensive (i.e., all resources) study years. Sources: 1996 (Georgette 2000); 2002 (ADF&G 2025); 2008 (Braem 2012a); 2012 (Braem et al. 2017); 2013, 2014 (Braem et al. 2018); 2017 (Gonzalez et al. 2020)											

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9.2.Subsistence Use Areas

Figure 17: Noorvik Subsistence Use Areas, All Resources

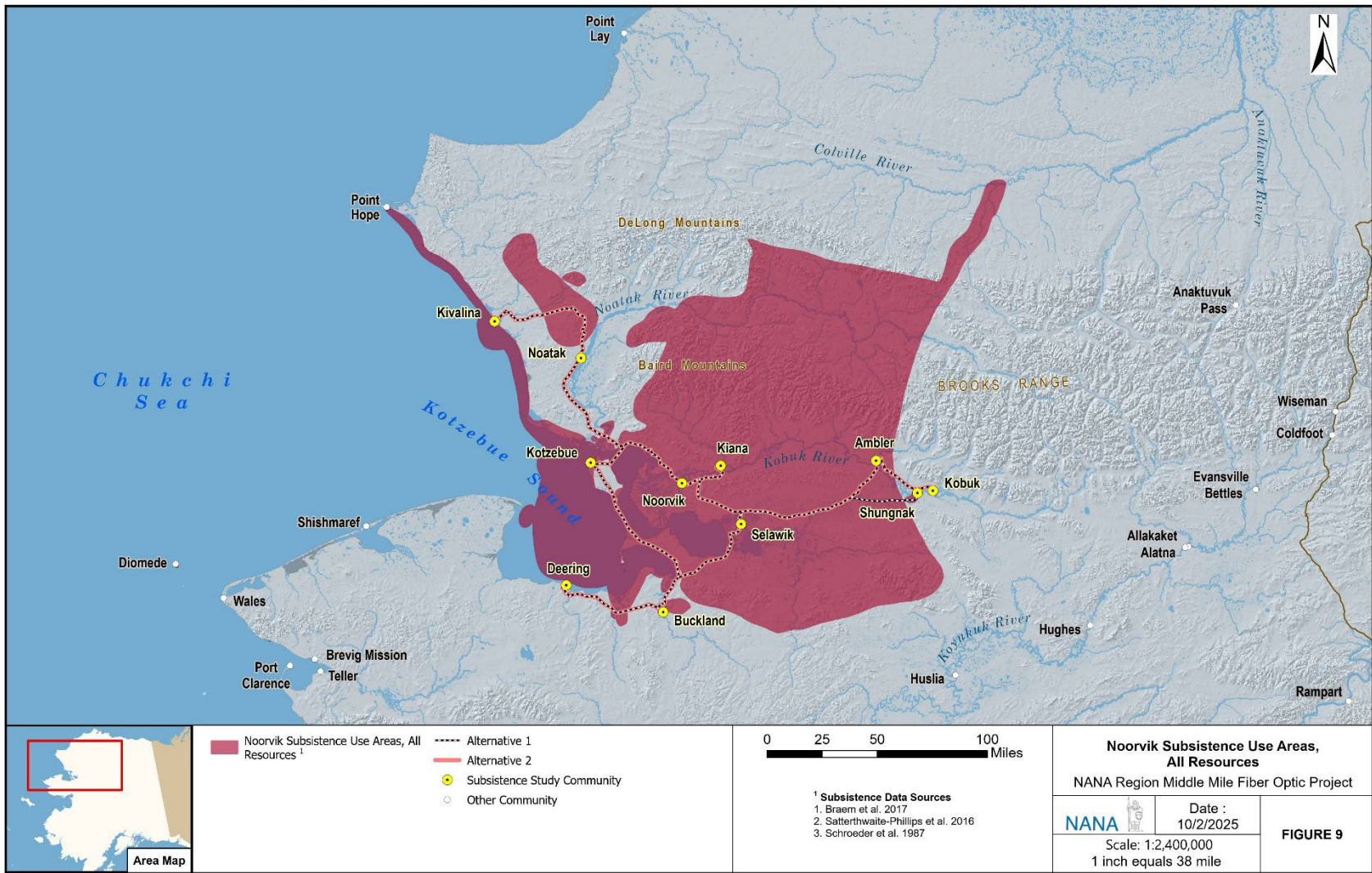


Figure 18: Noorvik Timing of Subsistence Activities

	Ja n	Fe b	Ma r	Ap r	Ma y	Ju n	Ju l	Au g	Se p	Oc t	No v	De c	Most Recent Decade for Subsistence Activity/Harves t Data
Resources													
Fish													1980s
Caribou													1980s/2010s
Moose													1980s/2010s
Bear													1980s/2010s
Other Large Land Mammals	No Data												
Furbearers & Small Land Mammals													1980s/2010s
Marine mammals													2010s
Upland birds													1980s
Waterfowl													1980s
Eggs	No Data												
Marine Invertebrates	No Data												
Plants and Berries													1980s
Wood													1980s
Sources: Alaska Department of Fish and Game (1986); Braem (2012a); Braem et al. (2018); Gonzalez et al. (2020)													

10. Selawik

10.1. Harvest Data

Table 28: Selawik Subsistence Harvest Estimates by Resource Category, All Resources Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
2011	All Resources	99	91	91	89	97		456,493	2,701	533	100.0%
	Salmon	97	74	59	62	86		114,559	678	134	25.1%
	Non-Salmon Fish	75	10	3	30	75		3,510	21	4	0.8%
	Large Land Mammals	88	75	73	67	73		310,175	1,835	362	67.9%
	Small Land Mammals	63	18	14	29	63		6478	38	8	1.4%
	Marine Mammals	95	80	80	58	53		6397	38	7	1.4%
	Migratory Birds	62	44	38	41	41		12524	74	15	2.7%
	Upland Game Birds	52	39	34	28	19		1350	8	2	0.3%
	Bird Eggs	36	30	27	24	17		1424	8	2	0.3%
	Marine Invertebrates	7	2	2	0	7		3	0	0	0.0%
	Vegetation	13	10	10	7	6		73	0	0	0.0%
Notes: Blank cells indicate no data. ¹ Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons. ² Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). Sources: 2011 (Braem, Fox, Magdanz, and Koster 2013)											

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Table 29: Selawik Subsistence Harvest Estimates by Resource Category, Non-Comprehensive Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Numbers	Total Pounds	Average HH Pounds	Per Capita Pounds
Salmon										
2013	Salmon	35	8	7	12	32		2,190	13	3
2014	Salmon	44	9	9	10	41		7,756	42	10
Non-Salmon Fish										
2013	Non-Salmon Fish	81	61	61	54	55		179,851	1,052	240
2014	Non-Salmon Fish	70	56	52	38	45		123,763	676	157
Large Land Mammals										
1999	Large Land Mammals	97	64	63	77	88	1,361	210,190	1,347	298
2006	Large Land Mammals		66	64			983	152,187	906	198
Small Land Mammals										
1999	Small Land Mammals	97	64	63	77	88	1,361	210,190	1,347	298
2006	Small Land Mammals			20			134	2,255	13	3

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Numbers	Total Pounds	Average HH Pounds	Per Capita Pounds
Migratory Birds										
1993	Migratory Birds			43			1,431	3,757	29	7
1997	Migratory Birds			72			2,723	5,470	36	8
Upland Game Birds										
1993	Upland Game Birds			12			331	331	3	1
1997	Upland Game Birds			43			997	997	7	1
Bird Eggs										
1993	Bird Eggs	2	2	2	0	0	2	0	0	0
1997	Bird Eggs			3			63	11	0	0
Notes: Blank cells indicate no data.										
Sources: 1993 (Wolfe and Paige 1995); 1997 (Georgette 2000); 1999, 2006 (ADF&G 2025); 2013, 2014 (Braem et al. 2018)										

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Table 30: Selawik Subsistence Harvest Estimates by Selected Species, All Study Years

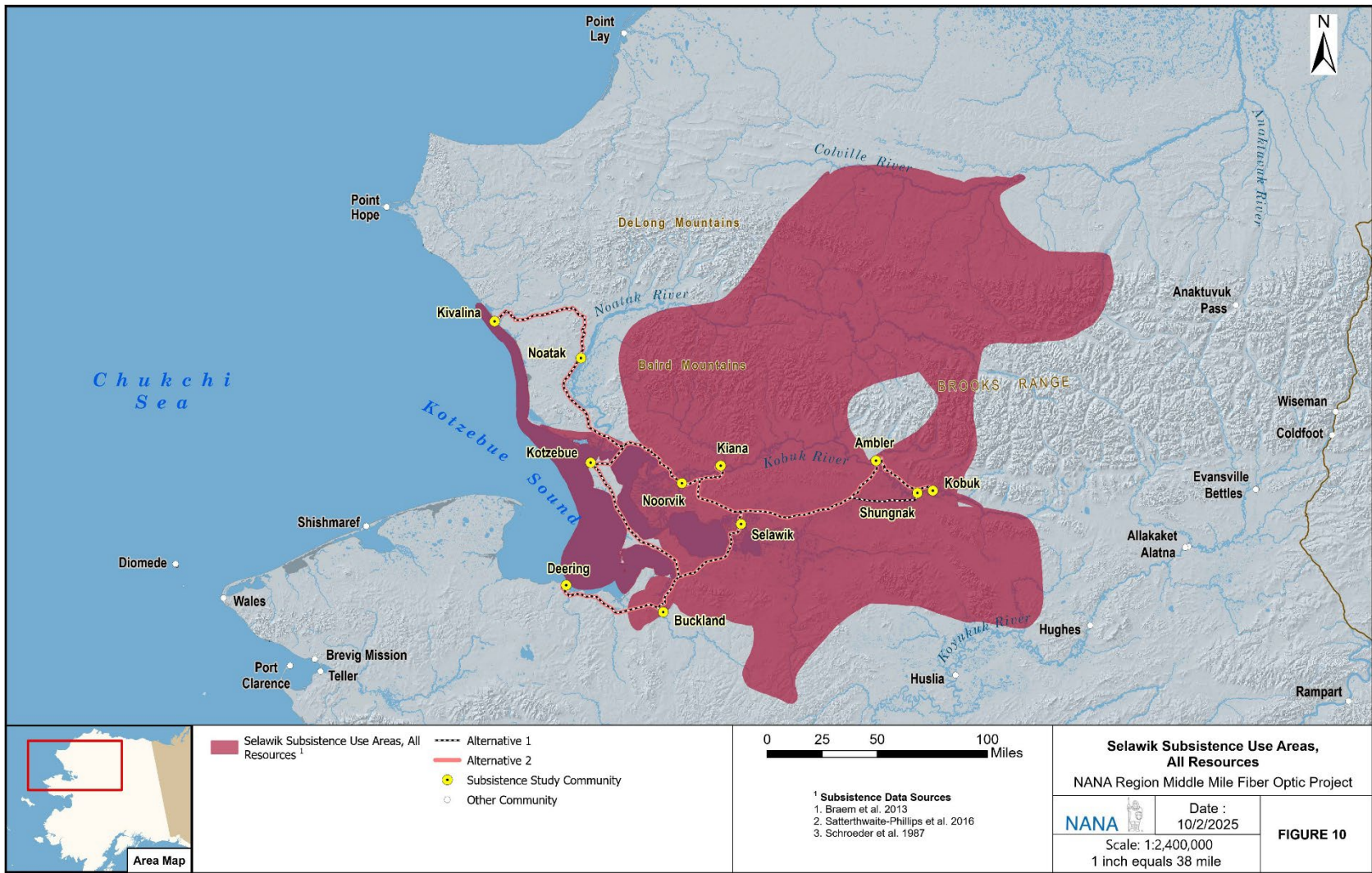
Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
1993	White-fronted Geese			12			244	1,034	8	2	
	Lesser Canada Geese			14			212	842	6	2	
	Cacklers			14			147	343	3	1	
	Willow Ptarmigan			12			331	331	3	1	
	Northern Pintail			17			181	283	2	1	
1997	Canada Geese			50			687	1,876	12	3	
	Willow Ptarmigan			43			997	997	7	1	
	Mallard			48			456	888	6	1	
	White-fronted Geese			12			138	587	4	1	
	Black Scoter			30			330	580	4	1	
1999	Caribou	97	61	61	75	84	1,289	175,335	1,124	249	
	Moose	55	33	29	38	41	64	34,171	219	49	
	Black Bear	5	10	4	3	2	7	588	4	1	
	Brown Bear	1	2	1	0	0	1	96	1	0	
2006	Caribou		65	63			934	127,120	757	165	
	Whitefish			40			26,431	46,254	275	60	
	Sheefish			53			5,129	35,903	214	47	
	Pike			46			11,108	33,324	198	43	
	Moose		25	24			46	24,870	148	32	
2011	Broad Whitefish	81	57	55	47	55	47,394	151,722	898	177	33.2%

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
	Caribou	97	70	54	59	80	683	92,947	550	109	20.4%
	Sheefish	77	64	57	46	45	6,190	68,958	408	81	15.1%
	Northern Pike	71	56	47	40	38	15,956	52,653	312	61	11.5%
	Humpback Whitefish	51	29	26	25	34	12,647	23,705	140	28	5.2%
	Moose	75	49	23	34	65	40	21,283	126	25	4.7%
	Chum Salmon	43	14	11	21	41	879	5,273	31	6	1.2%
	Burbot	51	40	32	29	25	1,081	4,541	27	5	1.0%
2013	Broad whitefish	63	40	39	34	42	23,159	74,110	433	99	
	Sheefish	77	56	56	45	46	8,561	47,086	275	63	
	Northern pike	61	49	48	37	30	10,528	34,741	203	46	
	Humpback whitefish	23	19	19	12	12	7,648	16,061	94	21	
	Least cisco	12	11	11	8	6	4,670	3,269	19	4	
2014	Chum salmon	39	8	8	9	36	1,151	7,157	39	9	
	Sheefish	62	50	47	27	35	4,164	22,899	125	29	
	Broad whitefish	54	36	35	28	30	17,202	55,046	301	70	
	Northern pike	56	47	42	25	25	8,855	29,221	160	37	
	Humpback whitefish	21	14	13	12	13	5,250	11,025	60	14	
Notes: Blank cells indicate no data. ¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons. ²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). For All Resources study years (2011), species are listed in descending order by percent of total harvest and are limited to species accounting for at least 1.0 percent of the total harvest; for single-resource study years, species are listed in descending order by total estimated pounds and limited to the five top species. Years lacking "% of total harvest" data were not comprehensive (i.e., all resources) study years. Sources: Sources: 1993 (Wolfe and Paige 1995); 1997 (Georgette 2000); 1999, 2006 (ADF&G 2025); 2011 (Braem et al. 2013); 2013, 2014 (Braem et al. 2018)											

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10.2. Subsistence Use Areas

Figure 19: Selawik Subsistence Use Areas, All Resources



10.3. Timing of Subsistence Activities

Figure 20: Selawik Timing of Subsistence Activities

Resources	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Most Recent Decade for Subsistence Activity/Harvest Data
Fish	No Data												
Caribou													2010s
Moose													2010s
Bear													2010s
Other Large Land Mammals	No Data												
Furbearers & Small Land Mammals													2010s
Marine mammals													2010s
Upland birds	No Data												
Waterfowl	No Data												
Eggs	No Data												
Marine Invertebrates	No Data												
Plants and Berries	No Data												
Wood	No Data												
Sources: Braem, Fox, Magdanz, and Koster (2013).													

11. Shungnak

11.1. Harvest Data

Table 31: Shungnak Subsistence Harvest Estimates by Resource Category, All Resources Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				Percent of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Numbers ¹	Total Pounds ²	Average HH Pounds	Per Capita Pounds	
2002	All Resources	100	100	100	80	98		151,879	2,813	610	100.0%
	Salmon	76	61	57	27	55	3,847	22,942	425	92	15.1%
	Non-Salmon Fish	90	84	84	69	84	25,193	61,397	1,137	247	40.4%
	Large Land Mammals	98	69	67	51	84	417	60,838	1,127	244	40.1%
	Small Land Mammals	55	41	31	24	33	137	1174	22	5	0.8%
	Marine Mammals	71	4	2	24	71	2	373	7	1	0.2%
	Migratory Birds	75	55	53	33	51	996	2361	44	9	1.6%
	Upland Game Birds	49	39	39	16	29	277	264	5	1	0.2%
	Bird Eggs										
	Marine Invertebrates	0	0	0	0	0	0	0	0	0	0.0%
	Vegetation	96	92	92	39	45	537	2,529	47	10	1.7%
2012	All Resources	100	100	100	87	98		100,872	1,462	367	100.0%
	Salmon	87	41	39	39	72		15,417	223	56	15.2%
	Non-Salmon Fish	85	59	59	50	74		23,836	345	87	23.6%
	Large Land Mammals	96	52	48	43	87		56,487	819	206	55.9%
	Small Land Mammals	50	35	35	24	26		1,193	17	4	1.1%
	Marine Mammals	72	0	0	7	72		0	0	0	0
	Migratory Birds	65	39	37	28	50		2,349	34	9	2.3%
	Upland Game Birds	37	20	20	17	20		153	2	1	0
	Bird Eggs	2	0	0	0	2		0	0	0	0
	Marine Invertebrates	7	2	0	4	4		0	0	0	0
	Vegetation	96	96	78	52	39		1,438	21	5	1.4%

Notes: Blank cells indicate no data.
¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons.
²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers).

Sources: 2002 (Magdanz, Walker, and Paciorek 2004); 2012 (Braem et al. 2015).

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Table 32: Shungnak Subsistence Harvest Estimates by Resource Category, Non-Comprehensive Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Number	Total Lbs	Average HH Lbs	Per Capita Pounds
Salmon										
2013	Salmon	76	49	47	27	57		42,964	661	151
2014	Salmon	86	63	61	35	63		32,037	517	126

Study Year	Resource	Percentage of Households					Estimated Harvest			
		Use	Try to Harvest	Harvest	Give	Receive	Number	Total Lbs	Average HH Lbs	Per Capita Pounds
Non-Salmon Fish										
2013	Non-Salmon Fish	84	67	67	43	61		60,889	937	215
2014	Non-Salmon Fish	91	67	67	30	70		64,619	1,042	253
Large Land Mammals										
1998	Large Land Mammals	100	80	76	59	44	587	87,914	1,570	359
2008	Large Land Mammals	95	73	70	48	70	421	61,450	1,182	243
Small Land Mammals										
1998	Small Land Mammals			24			23	0	0	0
2008	Small Land Mammals	36	30	25	11	7	57	0	0	0
Migratory Birds										
1993	Migratory Birds			50			1,750	3,921	71	16
Upland Game Birds										
1993	Upland Game Birds			30			421	421	8	2
Bird Eggs										
1993	Bird Eggs	2	0	0	2	2	0	0	0	0
Notes: Blank cells indicate no data. ¹ Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers). ² Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers).										
Sources: 1993 (Wolfe and Paige 1995); 1998 (ADF&G 2025); 2008 (Braem 2012b); 2013 (Braem et al. 2018); 2014 (Braem et al. 2018).										

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Table 33: Shungnak Subsistence Harvest Estimates by Selected Species, All Study Years

Study Year	Resource	Percentage of Households					Estimated Harvest				% of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Number ¹	Total Lbs ²	Average HH Lbs	Per Capita Lbs	
1993	Lesser Canada Geese			36			227	902	16	4	
	White-fronted Geese			38			198	840	15	3	
	Willow Ptarmigan			30			421	421	8	2	
	Northern Pintail			30			228	355	6	1	
	Black Scoter			24			152	267	5	1	
1998	Caribou	100	74	72	56	35	561	76,301	1,363	312	
	Moose	50	32	30	28	20	21	11,159	199	46	
	Black Bear	6	9	6	6	0	4	365	7	1	
	Brown Bear	6	7	2	2	4	1	89	2	0	
	Wolf			19			18	0	0	0	
2002	Caribou	98	67	67	49	71	403	54,864	1,016	220	36.1%
	Humpback Whitefish	84	67	65	41	53	19,340	40,615	752	163	26.7%

Study Year	Resource	Percentage of Households					Estimated Harvest				% of Total Harvest
		Use	Try to Harvest	Harvest	Give	Receive	Number ¹	Total Lbs ²	Average HH Lbs	Per Capita Lbs	
	Chum Salmon	76	59	57	27	53	3,810	22,858	423	92	15.1%
	Sheefish	84	65	65	33	55	2,020	11,111	206	45	7.3%
	Moose	73	39	16	18	63	11	5,696	105	23	3.8%
	Broad Whitefish	45	25	22	22	35	1,744	5,580	103	22	3.7%
	Berries	94	84	84	33	31	365	2,374	44	10	1.6%
2008	Caribou	95	73	68	45	61	406	55,210	1,062	218	
	Moose	55	27	23	11	34	11	5,932	114	23	
	Black Bear	11	7	5	0	9	2	156	3	1	
	Brown Bear	9	9	7	2	5	2	152	3	1	
	Beaver	27	25	25	11	2	39	0	0	0	
2012	Caribou	93	52	48	41	74	396	53,802	780	196	53.3%
	Sheefish	83	57	57	48	61	1,556	17,334	251	63	17.1%
	Chum Salmon	78	39	37	30	65	2,595	14,747	214	54	14.6%
	Broad Whitefish	41	17	13	20	33	888	2,842	41	10	2.8%
	Moose	52	11	7	9	48	5	2,421	35	9	2.4%
	Humpback Whitefish	15	9	7	4	11	660	1,386	20	5	1.3%
	Beaver	50	35	35	24	22	68	1,110	16	4	1.1%
	Least Cisco	7	7	4	4	2	1,125	1,125	16	4	1.1%
2013	Chum salmon	74	49	47	27	55	7,257	42,964	661	151	
	Sheefish	84	65	65	33	47	3,559	40,574	624	143	
	Humpback whitefish	37	31	31	25	16	8,400	17,639	271	62	
	Broad whitefish	41	29	27	6	25	578	1,851	29	7	
	Northern pike	12	10	10	2	2	127	420	7	2	
2014	Sheefish	91	67	67	26	61	3,123	35,603	574	140	
	Chum salmon	84	63	61	35	58	5,101	31,710	511	124	
	Broad whitefish	49	40	40	9	35	7,776	24,883	401	98	
	Arctic grayling	37	33	33	9	21	1,116	1,004	16	4	
	Dolly Varden	33	26	26	7	21	216	714	12	3	

Notes: Blank cells indicate no data.

¹Estimated numbers typically represent individuals except in some cases such as vegetation where they may represent gallons.

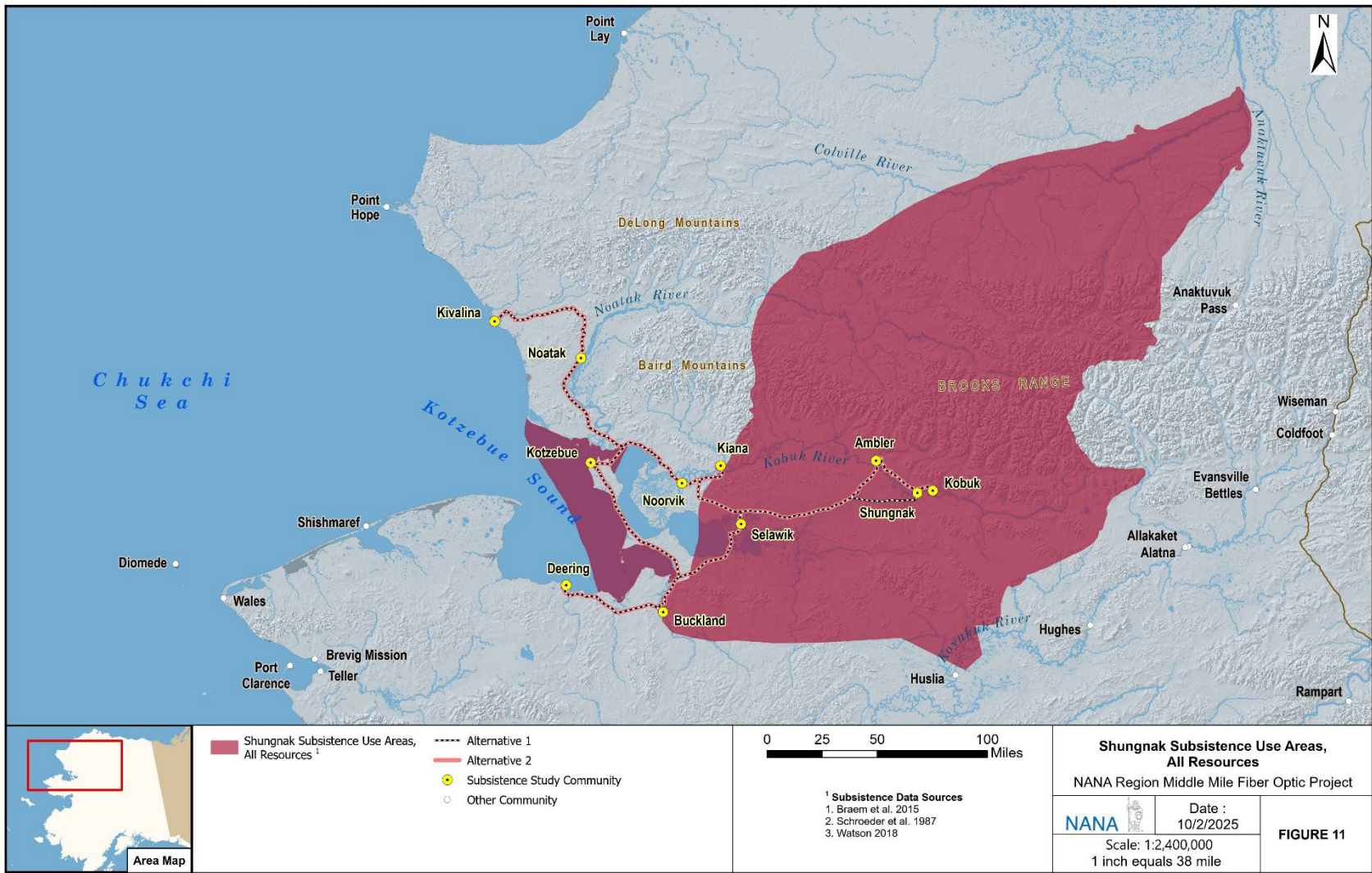
²Estimated pounds include only edible pounds and therefore do not include estimates for resources that are not typically eaten by community residents (e.g., furbearers).

For All Resources study years (2002, 2012), species are listed in descending order by percent of total harvest and are limited to species accounting for at least 1.0 percent of the total harvest; for single-resource study years, species are listed in descending order by total estimated pounds and limited to the five top species. Years lacking "% of total harvest" data were not comprehensive (i.e., all resources) study years.

Sources: 1993 (Wolfe and Paige 1995); 1998 (ADF&G 2025); 2002 (Magdanz et al. 2004); 2008 (Braem 2012b); 2012 (Braem et al. 2015); 2013, 2014 (Braem et al. 2018).

11.2. Subsistence Use Areas

Figure 21: Selawik Subsistence Use Areas, All Resources



11.3. Timing of Subsistence Activities

Figure 22: Shungnak Timing of Subsistence Activities

	Ja n	Fe b	Ma r	Ap r	Ma y	Ju n	Ju l	Au g	Se p	Oc t	No v	De c	Most Recent Decade for Subsistence Activity/Harves t Data
Resource													
Fish													1980s
Caribou													2010s
Moose													2010s
Bear													2010s
Sheep	No Data												
Furbearers & Small Land Mammals													2010s
Marine mammals	No Data												
Upland birds													2010s
Waterfowl													2010s
Eggs	No Data												
Marine Invertebrates	No Data												
Plants and Berries													1980s
Wood													1980s
Sources: Alaska Department of Fish and Game (1986); Braem (2012a); Braem et al. (2015)													

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