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Customary and Traditional Use Worksheet: Ptarmigan and Grouse, Game Management Units 1–5

Prepared by

Alaska Department of Fish and Game

Division of Subsistence

January 2026

Alaska Department of Fish and Game **Division of Subsistence**

Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the reports by the Division of Subsistence. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

Weights and measures (metric)

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

Weights and measures (English)

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

Time and temperature

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

Physics and chemistry

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

General

all commonly-accepted abbreviations e.g., Mr., Mrs., AM, PM, etc.	
all commonly-accepted professional titles e.g., Dr., Ph.D., R.N., etc.	
Alaska Administrative Code	AAC
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat. or long.
monetary symbols (U.S.)	$, ¢
months (tables and figures):	first three letters (Jan,...,Dec)
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Measures (fisheries)

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

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	e
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	E
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

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CUSTOMARY AND TRADITIONAL USE WORKSHEET: PTARMIGAN AND GROUSE, GAME MANAGEMENT UNITS 1–5

Prepared by

Alaska Department of Fish and Game
Division of Subsistence

Alaska Department of Fish and Game
Division of Subsistence
PO Box 110024
Juneau, Alaska 99811

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Alaska Department of Fish and Game, Division of Subsistence,
PO BOX 110024, Juneau, Alaska 99811

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TABLE OF CONTENTS

LIST OF TABLES

Table **Page**

LIST OF FIGURES

Figure **Page**

INTRODUCTION

BACKGROUND

At its 2026 Southeast Alaska regulatory meeting, the Alaska Board of Game (board) will consider proposals regarding harvest limits and hunting season dates for grouses in Game Management Units (GMUs) 1–5 (Proposals 17 and 18) and GMU 3 (Proposal 69) and hunting season dates for ptarmigans in Unit 1C (Proposal 36). Alaska Statute (AS) 16.05.258(a) *Subsistence use and allocation of fish and game* (state subsistence law) requires that the board identify game populations, or portions of populations, that are customarily and traditionally taken or used for subsistence. The board applies the criteria from 5 AAC 99.010 *Boards of fisheries and game subsistence procedures* (generally known as "the eight criteria") when making customary and traditional use (C&T) determinations. The board has not made C&T determinations for grouses or ptarmigans in any GMU in Southeast Alaska. Typically, prior to creating regulations for a resource in a given management area, the board must first determine whether the resource is customarily and traditionally used for subsistence, and if so, AS 16.05.258 applies. This worksheet contains information on noncommercial harvests and uses of grouses and ptarmigans in GMUs 1–5 (depicted in Figure 1) to assist the board in making a C&T determination for these units. The information is sourced from ethnographic accounts of resource use in Southeast Alaska in the 1800s and 1900s as well as from contemporary research the Alaska Department of Fish and Game (ADF&G) Division of Subsistence (division) has conducted in communities throughout the area. In the historical ethnographic literature, grouses and ptarmigans are not always identified by species name and are rarely afforded the same attention given to other species such as deer or salmon. The information is organized according to the eight criteria and may be supplemented by written and oral public testimony during the board meeting.

Three species of grouse are found within Southeast Alaska: sooty grouse *Dendragapus fuliginosus*, spruce grouse *D. canadensis*, and ruffed grouse *Bonasa umbellus*. Sooty grouse are the most abundant species in Southeast Alaska, inhabiting nearly every island in the archipelago and coastal portions of the mainland. Spruce grouse occupy the Sitka spruce forests of the southern portion of Southeast Alaksa. A subspecies of spruce grouse (*D. c. isleibi*) is the only known grouse species to inhabit Prince of Wales Island. The habitat of the ruffed grouse is the least widespread of the grouse species in the region, occupying only the eastern mainland of Southeast Alaska in areas around the mouth of the Taku and Stikine rivers where there is sufficient habitat. Rock ptarmigan *Lagopus mutus*, white-tailed ptarmigan *L. leucurus*, and willow ptarmigan *L. lagopus* occupy Southeast Alaska. Ptarmigan favor sparsely timbered or treeless areas and are found primarily in alpine habitats. They inhabit the Southeast Alaska mainland and multiple islands within the region; however, willow ptarmigan are not present on Prince of Wales Island.

There are a total of 32 communities and five GMUs in Southeast Alaska. With the exception of the Juneau and Ketchikan nonsubsistence areas, the division has conducted comprehensive harvest and use studies in each of these communities at least once between 1981 and 2023. The harvest and use of grouses and ptarmigans documented in each community is presented in Table 1 (grouses) and Table 2 (ptarmigans).

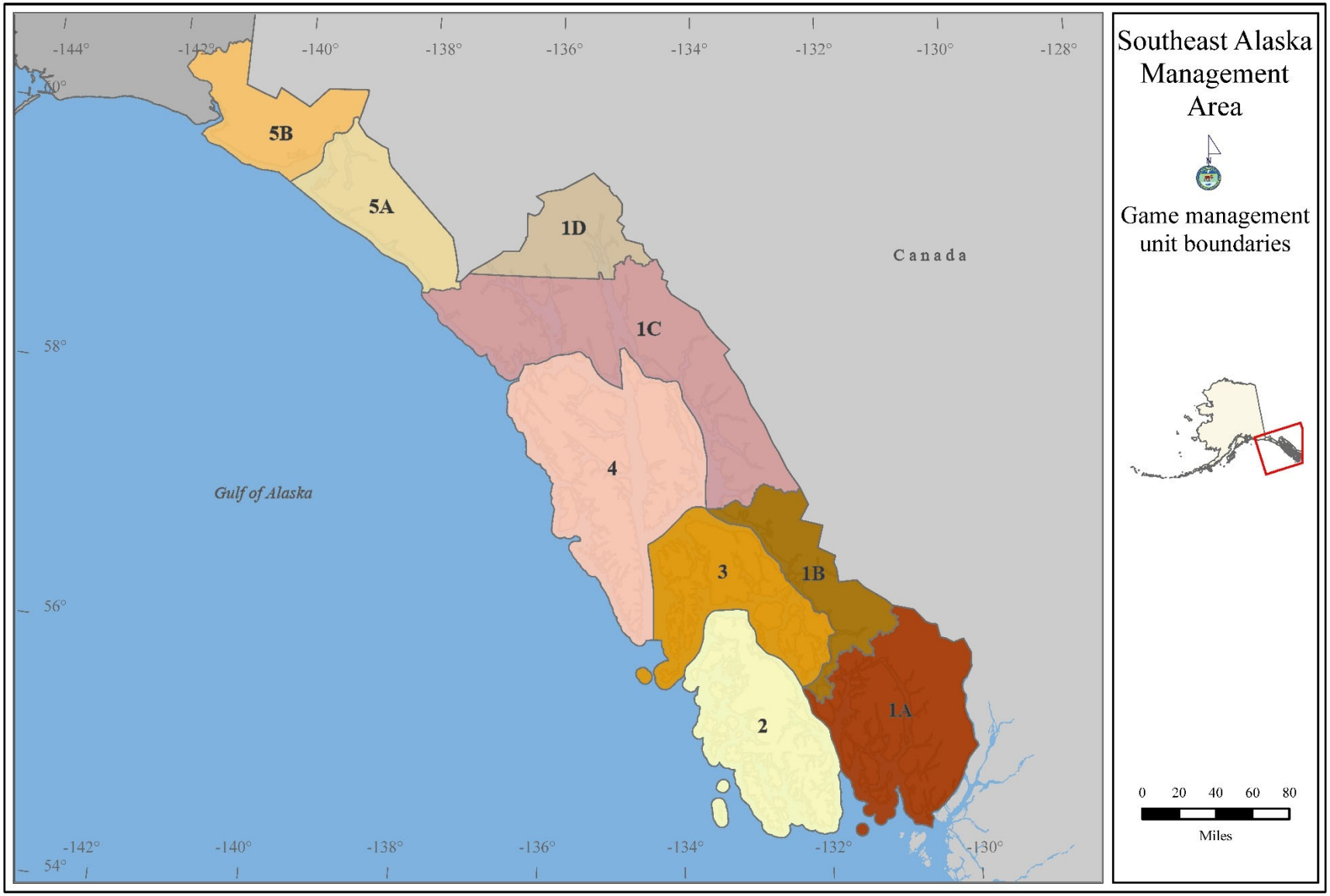

Figure 1.–Game Management Units 1–5.

THE EIGHT CRITERIA

CRITERION 1. LENGTH AND CONSISTENCY OF USE

A long-term consistent pattern of noncommercial taking, use, and reliance on the fish stock or game population that has been established over a reasonable period of time of not less than one generation, excluding interruption by circumstances beyond the user's control, such as unavailability of the fish or game caused by migratory patterns.

Traditionally, both grouses and ptarmigans served as important food sources for the peoples of Southeast Alaska, especially during portions of the year when fish were less plentiful (Tidemann and Gosler 2010:189). Documented use of multiple species of grouse and ptarmigan by the Indigenous Tlingit and Haida date back thousands of years (Tidemann and Gosler 2010). The ethno-ornithological record suggests that grouses have long played a role in both the physical and cultural sustenance of Southeast Alaska populations. Historically, and today, both species of birds and their eggs have been consumed and also used in creating handicrafts and ceremonial objects—including masks, rattles, fans, and other forms of art and adornments (Hunn and Thornton 2010:190).

The prevalence of vocabulary for grouse and ptarmigan in the Lingit and Xaat Kil languages spoken by the Tlingit peoples and Haida peoples, respectively, further depicts long-term association with the animals. The Lingit word "at kawdliyeeji at" translates to both "bird/fowl" and "grouse," indicating the prevalence of a grouse as a prototypical bird (Tidemann and Gosler 2010:186). In Lingit, grouses and ptarmigans are named categorically at a species level, with the exception of sooty grouse, for which male and female birds are separately named, suggesting exceptional cultural significance of this family of birds (Tidemann and Gosler 2010:189). In Xaat Kil, the Haida language, "skáw" translates to "grouse," "ptarmigan," and "chicken," illustrating how each species of bird occupies similar roles in Haida society. Although one word can be used to describe grouses or ptarmigans interchangeably in Xaat Kil, ptarmigans are also referred to as "hlk'yáan skáw" and blue grouse (sooty grouse) is called "núugd" and is the single type of grouse or ptarmigan having a species name (Lachler 2010).

Tlingit and Haida placenames throughout Southeast Alaska also feature game bird names. One example is a former Kaagwaantaan clan village site called Kax'noowú, or "Grouse Fort," which was located along Icy Strait near present-day Hoonah. Although this village site is no longer occupied, the fact of its existence indicates long-term association with grouses for Xuna Tlingit in the area (de Laguna 1990:204).

Several anthropologists working in Southeast Alaska have documented the use of grouses and ptarmigans. Krause (1989rep.) reported that during fieldwork in the late 1880s, hunting occurred for almost all species of birds, except for raven, albatross, and long-tailed duck. Oberg (1973) stated that blue (sooty) grouse, "willow grouse" (likely referring to willow ptarmigan), and spruce hens (spruce grouse) were the most common forest birds used for food during the fall and spring months. Use of grouses and ptarmigans likely fluctuates with population abundance. Holmberg (1985) reported that in the 1850s, people used any type of seabird because land birds were considered rare. Additionally, the introduction of martens in the 1930s resulted in a significant decrease in the grouse population on Baranof Island, and, since martens have remained abundant, the grouse population remains depressed (Thornton 1998:106). Results from recent division research conducted for 2023 in Pelican, Gustavus, and Tenakee Springs are pending publication in an ADF&G division Technical Paper. During research, key respondent interviews were conducted that documented contemporary and historical use of grouses and ptarmigans. Several respondents (identified by a unique code combining a number and reference to community of residence for confidentiality) noted that the reduced grouse and ptarmigan populations in the area have resulted in decreased harvests of the birds. One long-term Pelican resident discussed the changes in grouse and ptarmigan abundance locally:

> We used to have grouse, and we used to have ptarmigan. Haven't seen either of them for a long time. I think probably twenty years ago there was still a few ptarmigan around. You'd go up on the top in, going deer hunting out in September, you know, and see ptarmigan, but as far as the grouse goes, down. No, I haven't seen a grouse in forever and forever. I think, I give credit to the martens. (09182024PEC13)

Gustavus residents expressed a similar sentiment:

> There's very few grouse here anymore. Yeah they're just. Too many people and not enough, too much accessible areas, I don't know, just too much interaction between grouse and people. (09242024GST16)

> There may be fewer grouse, just because they're so easy to hunt in the spring. Uh, and I realized that when I was, you know, running all over the place in my 20s, where I could, uh, cruise down the beach here, all the way to the park line, and, um, kill every grouse. Because they're easier to hunt here than they are in steep, old growth, because they're in trees hooting. But, uh, the trees aren't that big. And you can climb these trees. Because they got branches down the ground. So I hunted them with a pistol. I just climbed the tree. And they let you do it. I'd just climb right up there, and shoot them, five feet above me. But I could go all the way down the beach, climb every tree they're in, and kill each one. So, one guy, in one day, can take out all the breeding males. (09252024GST17)

Available subsistence harvest data for grouses and ptarmigans are from household surveys conducted by the division in specific communities throughout Southeast Alaska from 1983–2023.[1] Table 1 presents this harvest information from division household harvest surveys on grouse use and harvest by households of Southeast Alaska communities, sorted by GMU. Table 2 presents the same information for ptarmigans. Although grouses are not used by the majority of households (ranging from 0%–29% during the available study years), some grouse hunting or use has been documented in most communities in Southeast Alaska. The highest levels of household harvest (by individual birds) and use of grouses occurred in the communities of GMU 1D (Haines and Klukwan) and GMU 3 (Kake, Petersburg, and Wrangell). Harvests have been less than 1 lb per capita, ranging from 0 birds harvested in several communities to 1,190 birds harvested in Haines in 1983. The communities of 1D also had the highest documented household use of ptarmigans, with approximately one-quarter of households using these birds. The highest harvest of ptarmigans (in individual birds) was documented in Haines (2,407 birds in 1983 and 1,127 birds in 1996), followed distantly by Sitka households (623 birds in 1996). Even in communities with no documented harvest of grouses or ptarmigans, there is still some household use of these birds due to resource sharing between communities throughout the region.

1. Resource use and estimated harvest amounts are published in the ADF&G Community Subsistence Information System: https://www.adfg.alaska.gov/sb/CSIS/ (hereinafter cited as CSIS).

Table 1.–Estimated harvest and use of grouses by communities of GMUs 1–5, 1983–2023.

GMU	Community	Study year	Percentage of households					Estimated total harvest (number of birds)	Estimated pounds harvested	
			Using	Attempting	Harvesting	Giving	Receiving		Total	Per capita
1A	Saxman	1999	2.7%	2.7%	2.7%	0.0%	0.0%	18	18.2	0.0
1C	Gustavus	2023	9.4%	11.5%	9.4%	1.0%	1.0%	93	84.3	0.1
1D	Haines	1983	26.5%	32.0%	24.5%	2.7%	2.0%	1,190	832.0	0.4
		1996	21.5%	19.4%	18.3%	2.2%	3.2%	974	974.0	0.4
		2012	12.1%	12.1%	11.4%	1.5%	1.5%	372	371.8	0.2
	Klukwan	1983	6.1%	6.1%	6.1%	3.0%	3.0%	40	28.0	0.2
		1996	19.4%	16.1%	12.9%	6.5%	9.7%	16	16.0	0.2
		2014	16.6%	12.5%	12.5%	8.3%	4.1%	21	20.8	0.3
2	Coffman Cove[a]	1998	20.0%	20.0%	20.0%	–	–	104	104.0	0.5
	Craig	1997	1.7%	1.7%	1.7%	0.6%	0.0%	21	21.0	0.0
	Edna Bay[a]	1998	8.3%	8.3%	8.3%	–	–	3	3.0	0.1
	Hollis[a]	1998	2.2%	2.2%	2.2%	–	–	6	6.0	0.0
	Hydaburg	1997	2.0%	2.0%	2.0%	0.0%	0.0%	13	13.0	0.0
	Kasaan[a]	1998	7.1%	7.1%	7.1%	–	–	3	3.0	0.1
	Klawock	1997	2.8%	2.8%	2.8%	0.0%	0.0%	34	34.0	0.0
	Naukati Bay[a]	1998	22.0%	22.0%	22.0%	–	–	78	78.0	0.5
	Thorne Bay[a]	1998	14.6%	14.6%	14.6%	–	–	78	78.0	0.2
	Whale Pass[a]	1998	6.7%	6.7%	6.7%	–	–	1	1.0	0.0
		2012	9.5%	9.5%	9.5%	0.0%	0.0%	15	15.4	0.3
3	Kake	1985	28.6%	–	21.4%	–	–	227	159.0	0.3
		1996	27.4%	23.3%	21.9%	2.7%	5.5%	447	447.0	0.6
		2022	23.4%	20.3%	17.2%	6.3%	9.4%	92	83.4	0.2
	Petersburg	2000	10.4%	9.6%	9.6%	0.8%	2.4%	659	659.1	0.2

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Table 1.–Page 2 of 2.

GMU	Community	Study year	Percentage of households					Estimated total harvest (number of birds)	Estimated pounds harvested	
			Using	Attempting	Harvesting	Giving	Receiving		Total	Per capita
	Wrangell	2000	10.2%	9.2%	9.2%	4.1%	2.0%	572	571.7	0.3
4	Angoon	1984	7.9%	7.9%	7.9%	0.0%	0.0%	38	57.0	0.1
		1996	1.4%	1.4%	1.4%	0.0%	0.0%	9	9.0	0.0
		2012	0.0%	2.0%	0.0%	0.0%	0.0%	0	0.0	0.0
	Hoonah	1985	2.8%	–	1.4%	–	–	8	6.0	0.0
		1996	3.9%	3.9%	3.9%	0.0%	0.0%	36	36.0	0.0
		2012	4.1%	3.3%	3.3%	0.0%	0.8%	49	48.6	0.1
	Sitka	1996	1.7%	1.7%	1.7%	0.9%	0.0%	701	701.0	0.1
		2013	0.2%	0.0%	0.0%	0.0%	0.2%	10	10.0	0.0
	Tenakee Springs	2023	5.3%	5.3%	5.3%	2.6%	0.0%	21	18.8	0.2
	Whitestone Logging Camp	1996	4.2%	4.2%	4.2%	0.0%	0.0%	7	7.0	0.1
5	Yakutat	2000	0.0%	0.7%	0.0%	0.0%	0.0%	0	0.0	0.0

Sources ADF&G Division of Subsistence CSIS for 1983–2022; ADF&G Division of Subsistence household surveys, 2024, for 2023.

Note "–" indicates no data are available.

a. Due to issues with data processing, the percentages of households using or hunting grouses on Prince of Wales Island communities in 1998 are unknown. The percentage of households harvesting has been used as a minimum estimate for households using and hunting.

Table 2.–Estimated harvest and use of ptarmigans by communities of GMUs 1–5, 1983–2023.

GMU	Community	Study year	Percentage of households					Estimated total harvest (number of birds)	Estimated pounds harvested	
			Using	Attempting	Harvesting	Giving	Receiving		Total	Per capita
1A	Saxman	1999	1.4%	2.7%	1.4%	0.0%	0.0%	2	2.3	0.0
1C	Gustavus	2023	1.0%	2.1%	1.0%	1.0%	0.0%	3	2.2	0.0
1D	Haines	1983	26.5%	28.6%	23.1%	4.1%	4.1%	2,407	1,683.0	0.9
		1996	11.8%	8.6%	8.6%	2.2%	3.2%	1,127	789.0	0.4
		2012	5.3%	4.5%	3.8%	0.8%	1.5%	81	80.6	0.0
	Klukwan	1983	9.1%	12.1%	9.1%	3.0%	0.0%	27	19.0	0.1
		1996	22.6%	16.1%	12.9%	6.5%	9.7%	26	18.0	0.2
		2014	8.3%	4.1%	4.1%	0.0%	4.1%	16	16.0	0.3
2	Coffman Cove[a]	1998	14.0%	14.0%	14.0%	–	–	30	21.0	0.1
	Craig	1997	2.3%	2.3%	2.3%	0.6%	0.0%	141	98.0	0.1
	Hydaburg	1997	2.0%	2.0%	2.0%	0.0%	0.0%	39	27.0	0.1
	Klawock	1997	2.8%	2.8%	2.8%	0.0%	0.0%	29	20.0	0.0
	Naukati Bay[a]	1998	2.0%	2.0%	2.0%	–	–	3	2.0	0.0
	Port Protection	1996	4.0%	4.0%	4.0%	0.0%	0.0%	5	3.0	0.0
	Thorne Bay[a]	1998	5.6%	5.6%	5.6%	–	–	21	14.0	0.0
	Whale Pass[a]	1998	6.7%	6.7%	6.7%	–	–	3	2.0	0.0
		2012	9.5%	9.5%	9.5%	0.0%	0.0%	10	10.3	0.2
3	Kake	2022	1.6%	0.0%	0.0%	0.0%	1.6%	0	0.0	0.0
	Petersburg	2000	0.8%	0.8%	0.8%	0.0%	0.0%	9	8.6	0.0
	Wrangell	2000	2.0%	2.0%	2.0%	1.0%	0.0%	236	236.3	0.1
4	Angoon	1984	0.0%	2.6%	0.0%	0.0%	0.0%	0	0.0	0.0

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Table 2.–Page 2 of 2.

GMU	Community	Study year	Percentage of households					Estimated total harvest (number of birds)	Estimated pounds harvested	
			Using	Attempting	Harvesting	Giving	Receiving		Total	Per capita
	Hoonah	1996	0.0%	1.3%	0.0%	0.0%	0.0%	0	0.0	0.0
		2012	2.5%	1.6%	1.6%	0.0%	0.8%	5	4.6	0.0
	Tenakee Springs	2023	2.6%	2.6%	2.6%	2.6%	0.0%	27	20.4	0.2
	Sitka	1996	1.7%	1.7%	1.7%	0.9%	0.0%	623	436.0	0.1
		2013	0.7%	0.7%	0.7%	0.0%	0.0%	347	346.9	0.0
5	Yakutat	1984	8.0%	12.0%	6.0%	6.0%	2.0%	156	109.0	0.2
		2000	5.8%	5.8%	4.3%	0.0%	1.4%	72	72.0	0.1
		2015	3.0%	4.0%	3.0%	3.0%	0.0%	127	127.4	0.2

Sources ADF&G Division of Subsistence CSIS for 1983–2022; ADF&G Division of Subsistence household surveys, 2024, for 2023.
Note "–" indicates no data are available.

a. Due to issues with data processing, the percentages of households using or hunting ptarmigans on Prince of Wales Island communities in 1998 are unknown. The percentage of households harvesting has been used as a minimum estimate for households using and hunting.

CRITERION 2. SEASONALITY

A pattern of taking or use recurring in specific seasons of each year.

Currently, the season for grouse hunting in GMUs 1–5 spans August 1 through May 15. Grouses and ptarmigans are available year-round, and harvest timing has traditionally been species-dependent. Grouses are favored in the fall and springtime when fish are less plentiful (Hunn and Thornton 2010:189). While rock ptarmigan are harvested year-round, willow ptarmigan are most often hunted in winter when heavy snowfall in the mountains push them down from alpine habitat into more populated areas at lower altitudes (Hunn and Thornton 2010:190).

Division household survey data show grouses harvested in every season (Table 3). For the entirety of Southeast Alaska communities with survey data, the majority of grouses were harvested in the fall, followed by the spring, with a small amount of harvest documented in the summer and winter. Survey data also indicate that ptarmigans are harvested in every season; the highest number of ptarmigans were harvested in the summer months, but more communities reported harvest of ptarmigans in the fall (Table 4). Ptarmigans are also harvested in the winter, with a small amount of harvest occurring in the spring.

Table 3.–Estimated harvests of grouses, by season, by communities of GMUs 1–5, 1983–2023.

Community	Fall	Spring	Summer	Winter	Season unknown	Total
Grouse	**563**	**248**	**74**	**68**	**3**	**955**
Angoon	0	0	0	0	0	0
Coffman Cove	102	0	2	0	0	104
Craig	14	7	0	0	0	21
Edna Bay	3	0	0	0	0	3
Gustavus	20	38	3	32	0	93
Haines	205	118	0	31	0	354
Hollis	0	6	0	0	0	6
Hoonah	16	0	0	0	0	16
Hydaburg	0	0	0	0	0	0
Kake	36	53	0	0	3	92
Kasaan	0	3	0	0	0	3
Klawock	34	0	0	0	0	34
Klukwan	0	16	0	5	0	21
Naukati Bay	44	0	34	0	0	78
Sitka	10	0	0	0	0	10
Tenakee Springs	0	0	21	0	0	21
Thorne Bay	64	0	14	0	0	78
Whale Pass	15	0	0	0	0	15
Whitestone Logging Camp	0	7	0	0	0	7
Yakutat	0	0	0	0	0	0

Sources ADF&G Division of Subsistence CSIS; ADF&G Division of Subsistence household surveys, 2024.

Table 4.–Estimated harvests of ptarmigans, by season, by communities of GMUs 1–5, 1983–2023.

Community	Fall	Spring	Summer	Winter	Season unknown	Total
Ptarmigan	**238**	**55**	**368**	**183**	**0**	**844**
Angoon	0	0	0	0	0	0
Coffman Cove	30	0	0	0	0	30
Craig	119	0	21	0	0	140
Gustavus	0	0	0	3	0	3
Haines	12	12	0	56	0	81
Hoonah	5	0	0	0	0	5
Hydaburg	0	0	0	0	0	0
Kake	0	0	0	0	0	0
Klawock	29	0	0	0	0	29
Klukwan	0	16	0	0	0	16
Naukati Bay	3	0	0	0	0	3
Port Protection	5	0	0	0	0	5
Sitka	0	0	347	0	0	347
Tenakee Springs	0	27	0	0	0	27
Thorne Bay	21	0	0	0	0	21
Whale Pass	10	0	0	0	0	10
Yakutat	4	0	0	124	0	127

Sources ADF&G Division of Subsistence CSIS; ADF&G Division of Subsistence household surveys, 2024.

CRITERION 3. MEANS AND METHODS OF HARVEST

A pattern of taking or use consisting of methods and means of harvest that are characterized by efficiency and economy of effort and cost.

Historically, Southeast Alaskans harvested grouses and ptarmigans with clubs or sticks, shot them with projectiles such as rocks, arrows, or bullets, or caught them using a long-handled net or snare. De Laguna (1990) documented the use of bow hunting with arrows that had a blunt stone head, good for stunning the birds. From her account, ptarmigan feathers were considered best for these arrows. Krause (1989rep.) reported that birds in general were shot, but that ptarmigans were often snared. In the springtime, grouses are located by their loud, distinct call. The birds are an easy target for hunters. Grouses are not easily startled by humans and can be approached and captured with ease. Contemporary harvest practices generally includes using firearms, such as small-gauge shotguns and .22 caliber rifles. Some people also use bows and blunt arrows, as well as long-handled snares. Grouse and ptarmigan hunting occur mainly on foot. Grouses are harvested opportunistically while people are engaged in other activities such as deer hunting or berry picking, as well as harvested in targeted hunts.

CRITERION 4: GEOGRAPHIC AREAS

The area in which the noncommercial, long-term, and consistent pattern of taking, use, and reliance upon the fish stock or game population has been established.

Figure 2 shows the documented search and harvest locations gathered during division household surveys for studies collecting harvest and use information for 2000 through 2023. This map should be considered a minimum use area for several reasons: not every community household was interviewed during each year the division conducted research, so some households' harvest areas are likely missing from this map;

also, the data only represent the search areas from one year and other harvesting locations may have been used in other years but were not documented. As is seen in Figure 2, for studies for 2000–2023, some spatial data were recorded at the categorical level (upland game birds, i.e. grouses and ptarmigans) while other data were documented at the species level. Grouse hunting has been documented in GMUs 1C, 3, and 4. Ptarmigan hunting was recorded in GMUs 1C and 2. Hunting for "ptarmigan and grouse" was documented in GMUs 1D, 2, and 5A.

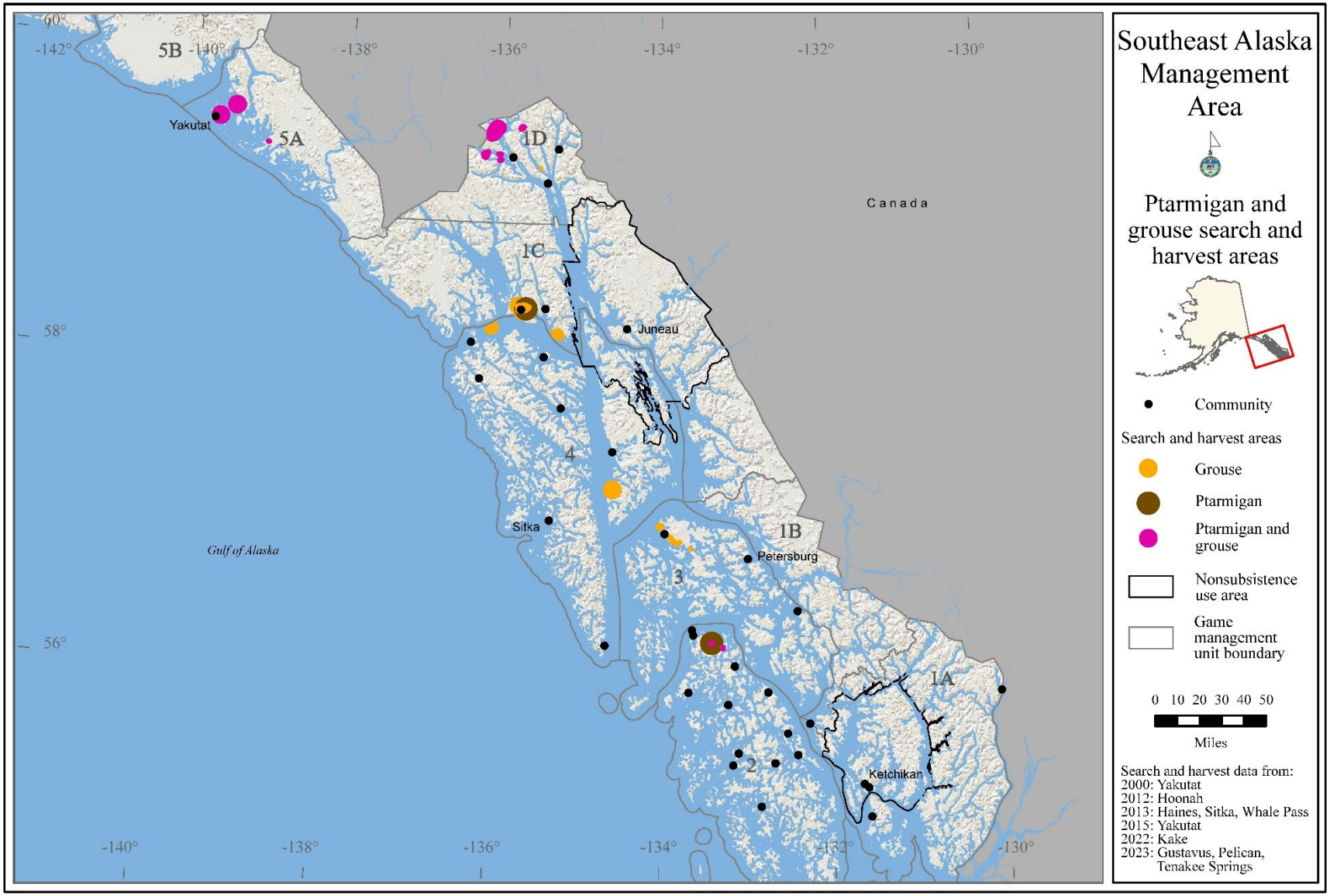

Figure 2.–Hunting areas for grouses and ptarmigans by communities of GMUs 1–5, 2000–2023.

CRITERION 5: MEANS OF HANDLING, PREPARING, PRESERVING, AND STORING

A means of handling, preparing, preserving, and storing fish or game that has been traditionally used by past generations, but not excluding recent technological advances where appropriate.

Historically, once harvested, grouses were typically gutted and plucked, then boiled or roasted over an open fire (de Laguna 1990). Traditionally, the meat that was not immediately consumed was smoked, stored in oil, and saved to be served at potlatches throughout the year. Ptarmigans were reported as having been roasted, boiled, dried, and frozen. Birds were only partially plucked, and the down and small feathers were singed off (de Laguna 1990). Contemporary preparation methods are similar, with most birds being gutted and plucked, and then either frozen or cooked.

CRITERION 6. INTERGENERATIONAL TRANSMISSION OF KNOWLEDGE, SKILLS, VALUE, AND LORE

A pattern of taking or use that includes the handing down of knowledge of fishing or hunting skills, values, and lore from generation to generation.

Hunting small game, such as grouses, is a common way for Southeast Alaska youth to be introduced to hunting. Grouse hunts are accessible, not requiring special permits or tags, and can take place close to their home community over the course of a day.

For the Southeast Tlingit and Haida, birds are not only a food source, but also icons, indices, and symbols of cultural and environmental knowledge, relations, and identity. Tlingit tradition credits birds with shaping the world as we know it, signaling the presence of food, danger, and fortune, as well as providing company and entertainment (Hunn and Thornton 2010:207).

Ptarmigans appear in Tlingit myth as an important helper species. The Shangukeidí oral history of *The Sea Lion and the Ptarmigan* demonstrates the ptarmigan's position as a symbol of help and encouragement. When, despite his persistence, a sea lion cannot overcome large, powerful waves to reach a reef and achieve a position of leadership, he crawls atop a mountain where he has chosen to die. In the alpine, the sea lion encounters a ptarmigan. The bird offers him pebbles, teaching the sea lion to carry the pebbles in his mouth. With the weight of the pebbles inside of him, the sea lion finds stability amid the powerful ocean, reaching the reef, and accepting his position as a leader. *The Sea Lion and the Ptarmigan* offers a lesson to its listener: to become a leader you must carry the words and encouragement of others inside of you. As described by David Katzeek, the late Kaajeetguxeex Thomas Young, a member of the Shangukeidí from the Chilkat area, speaking to his nephews, emphasized, "Be sure to carry it. Be sure to carry it. Be sure to carry it in your possession. My words. My words, they are like the pebbles, be sure to put them inside you. Those pebbles. Like carrying my words my son. A leader, someone becomes one, because of that … ."[2]

Like ptarmigans, grouses are associated with help or guidance, signifying changing seasons and related resource quality. Southeast Alaska residents refer to "when the grouse hoots" when considering when to stop harvesting shellfish. Because paralytic shellfish poisoning, or "red tide," is most prevalent during warmer months, various species of marine invertebrates are only harvested in the winter. Roughly coinciding with April is a period sometimes referred to as "grouse month," which refers to early spring when grouse are active and shellfish harvesters gauge grouse activity to signal for themselves when it is too late in the season to viably consume certain kinds of shellfish (Hunn et al. 2002:44).

Grouse gizzard stones are saved and used for traditional arts. The stones are woven into the lids of baskets and used in dance rattles (Hunn and Thornton 2010:190). As the stones hit one another they create a distinct clinking or ringing sound. The birds' blue-grey feathers and the spread tails of male sooty grouse

2. X̲'unei Lance Twitchell, "Taan k̲a X̲'eis'awáa -- Seal [sic] Lion and Ptarmigan (Tlingit Language) [with English subtitles]," recording of David Katzeek, posted January 25, 2013, YouTube video, 25:07. https://www.youtube.com/watch?v=A9FO6S3GTbI.

are favored for decorating regalia, and the white winter plumage of ptarmigans are incorporated into Tlingit honor dances, shaken off in movement as a gift to the dance's recipient.[3] Ptarmigans appear in Tlingit songs, such as the dance group Aa Haa He Yei- Gunanaa song called "Ch'ugi Aan," or "Ptarmigan Song," as well as the Ptarmigan Dance.[4]

CRITERION 7. DISTRIBUTION AND EXCHANGE

A pattern of taking, use, and reliance where the harvest effort or products of that harvest are distributed or shared, including customary trade, barter, and gift-giving.

Subsistence resources are commonly shared throughout Southeast Alaska. Generally, not all households participate equally in the harvest of all subsistence resources, although most households do use a variety. Distribution networks allow for efficiency in production and access to resources that a household does not harvest (Wolfe and Ellanna 1983). The reciprocal sharing of resources is a primary characteristic of subsistence economies. In Alaska Native communities, while the practice of sharing resources is often conducted through complex kinship responsibilities, it can also extend to unrelated households to strengthen relationships and foster community health by supporting those in need (Brown et al. 2017). Obtaining and sharing subsistence foods remains one of the primary means through which Alaska Native people maintain their cultural connections to their home communities and express their cultural identities (Lee 2002). In every community in Southeast Alaska where the division has conducted subsistence studies, researchers have documented extensive sharing of most wild resources, including grouses and ptarmigans.

Table 1 contains information on sharing grouse and ptarmigan harvests for communities in Southeast Alaska based on subsistence household harvest surveys. In most of the communities listed, more households used grouses and ptarmigans than harvested them because of sharing that occurs within and between communities.

CRITERION 8. DIVERSITY OF RESOURCES IN AN AREA; ECONOMIC, CULTURAL, SOCIAL, AND NUTRITIONAL ELEMENTS

A pattern that includes taking, use, and reliance for subsistence purposes upon a wide diversity of fish and game resources and that provides substantial economic, cultural, social, and nutritional elements of the subsistence way of life.

Subsistence harvests in all communities of Southeast Alaska are relatively large and diverse and are an important component of the region's mixed subsistence-cash economy. Division research from 1983 through 2023 in Southeast Alaska communities documented average annual per capita harvests of wild foods that ranged from 48 lb in Skagway and 70 lb in Metlakatla, increasing considerably to 530 lb in Hydaburg and 608 lb in Klukwan (Sill and Koster 2017).[5] During the most recent study in Tenakee Springs, Pelican, and Gustavus (2023), households used at least 76 different species of fish, wildlife, and plants in Pelican, more than 80 types in Tenakee Springs, and at least 120 types in Gustavus.[6] The mix of resources harvested and used depends upon species availability in each community's harvest and use area. Table 5 is an example of the seasonal cycle for Tlingit living in the vicinity of Sitka. This table demonstrates the diversity of resources upon which all area residents depend.

3. Sealaska Heritage Institute, "Git Hoan Dancers, Celebration2024: Sealaska Heritage," posted November 20, 2024, YouTube video, 44:58. https://www.youtube.com/watch?v=4AhvTfNElqY.
4. Dauenhauer Tlingit Oral Literature Collection, ["Audio recording of singing and dancing, June 27, 1973. Includes the Halibut Dance, Ptarmigan Dance, Gunanaa Dance, and Halibut Spirit Dance,"] Collection MC 005, Item 481, Tape 394, William L. Paul Sr. Archives, Sealaska Heritage Institute: Juneau, Alaska, accessed November 2025, https://collections.sealaskaheritage.org/MADetailB.aspx?rID=MC005/006-#481&db=biblio&dir=ARCHIVES.
5. See also the ADF&G Division of Subsistence CSIS.
6. David Koster, Research Analyst, ADF&G Division of Subsistence, Anchorage, personal communication.

Table 5.–Indian River Tlingit harvest calendar.

Tlingit moon	Month[a]	Fish	Animals and birds	Shellfish and plants
Xaát Disi (Salmon Moon) or Atka Taa Disi ([Animals] Flattening Moon)	July 1	Pink and chum salmon, Chinook (king) salmon (occ.); Dolly Varden and cutthroat trout; Pacific cod, halibut, and red snapper (offshore); Pacific herring	Sea otter (offshore)	Crabs and octopus; blueberries, cranberries, elderberries, huckleberries, salmonberries, and thimbleberries; goose tongue; devil's club, skunk cabbage, and tséit
Shaa Xeiyi Disi (Mountain Shadows Moon)	August 2	Pink and chum salmon; Dolly Varden and cutthroat trout; cod, halibut, and red snapper (offshore); herring	Sea otter (offshore)	Clams, crabs, and octopus; blueberries, cranberries, elderberries, huckleberries, salmonberries, and thimbleberries; goose tongue; devil's club, Hudson's Bay (Labrador) tea, skunk cabbage, tséit, and wood
Dis Yadi (Child Moon, referring to the weaning of young animals); also Kaxweix Disi (Highbush Cranberry Moon)	September 3	Chum, coho, and king salmon; cod, halibut, and red snapper (offshore); flounder and herring	Harbor seal and sea otter (offshore); deer, brown bear, and mountain goat; geese, ducks, and grouses	Clams, cockles, crabs, and octopus; blueberries, cranberries, elderberries, thimbleberries; devil's club, Hudson's Bay (Labrador) tea, skunk cabbage, tséit, and wood
Dis Tlein (Big Moon)	October 4	Coho and king salmon; cod, halibut and red snapper (offshore); flounder and herring	Harbor seal and sea otter (offshore); deer, brown bear, and mountain goat; geese, ducks, and grouses	Clams, cockles, crabs, and octopus; cranberries; devil's club, Hudson's Bay (Labrador) tea, skunk cabbage, and wood

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Table 5.–Page 2 of 3.

Tlingit moon	Month	Fish	Animals and birds	Shellfish and plants
Kukahaa Dis (Digging/Scratching Moon, bears dig winter dens)	November 5	Coho and king salmon; cod, halibut, and red snapper (offshore); flounder and herring	Harbor seal, sea lion, and sea otter (offshore); beaver, deer, brown bear, river (land) otter, marten, mink, mountain goat, and squirrel; geese, ducks, and grouses	Clams, cockles, and crabs; devil's club, Hudson's Bay (Labrador) tea, and wood
Shaanax Dis (Head Through Moon, hair shows on a seal fetus' head)	December 6	King salmon; cod, halibut, and red snapper (offshore); flounder and herring	Harbor seal and sea lion (offshore); beaver, deer, brown bear, land otter, marten, mink, mountain goat, and squirrel; geese, ducks, and grouses	Clams, cockles, and crabs; devil's club, Hudson's Bay (Labrador) tea, and wood
T'aawak Disi (Canada Goose Moon)	January 7	King salmon; cod, halibut, and red snapper (offshore); flounder and herring	Harbor seal and sea lion (offshore); beaver, land otter, marten, and mink; grouses	Clams, cockles, and crabs; devil's club, Hudson's Bay (Labrador) tea, and wood
S'eek Disi (Black Bear Moon, when cubs are born)	February 8	King salmon; cod, halibut, and red snapper (offshore); flounder and herring	Fur seal and harbor seal (offshore); beaver, brown bear, land otter, marten, and mink; grouses	Clams, cockles, and crabs; devil's club, Hudson's Bay (Labrador) tea, and wood
Heen Taanax Kayani Disi (Underwater Leaves [Sprout Moon])	March 9	King salmon; cod, halibut, and red snapper (offshore); flounder, herring, herring eggs	Fur seal, harbor seal, and sea otter (offshore); beaver, brown bear, land otter, marten, and mink; grouses	Clams, cockles, crabs, and octopus; cranberries; devil's club, Hudson's Bay (Labrador) tea, skunk cabbage, and wood
X'eigaa Kayani Disi (True Budding Moon, land plants sprout)	April 10	King salmon; cod, halibut, and red snapper (offshore); flounder and herring	Harbor seal, sea lion and sea otter (offshore); beaver, brown bear, and mountain goat; grouses	Cockles, crabs, and octopus; cranberries; devil's club, hemlock bark, Hudson's Bay (Labrador) tea, salmonberry shoots, skunk cabbage, spruce roots, tséit, wild celery, and wood

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Table 5.–Page 3 of 3.

Tlingit moon	Month	Fish	Animals and birds	Shellfish and plants
At Gadaxit Yinaa Disi (Ripening [of animals] Moon)	May 11	Red (Silver Bay) and king salmon; halibut and red snapper (offshore); flounder and herring	Harbor seal, sea lion, and sea otter (offshore); brown bear and mountain goat; bird eggs	Cockles, crabs, and octopus; cranberries; devil's club, hemlock bark, goose tongue, Hudson's Bay (Labrador) tea, Indian rice, saxifrage, skunk cabbage, spruce roots, tséit, wild celery, and wood
At Gadaxit Disi (Birthing [of animals] Moon)	June 12	Red (Silver Bay) and king salmon; halibut and red snapper (offshore); flounder and herring	Harbor seal and sea otter (offshore)	Cockles, crabs, and octopus; cranberries; devil's club, hemlock bark, goose tongue, Hudson's Bay (Labrador) tea, Indian rice, saxifrage, skunk cabbage, spruce roots, tséit, wild celery, and wood

Source Thornton (1998:67).

a. Information is organized according to the Tlingit calendar of moons (corresponding loosely to calendar months) for Sitka.

REFERENCES CITED

Brown, C.L., B.M. McDavid, C.F. Moncrieff, A. Trainor, and J.S. Magdanz. 2017. *Customary trade and barter as part of a continuum of exchange practices in 3 upper Yukon River region communities: Fort Yukon, Manley Hot Springs, and Venetie*. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 437: Fairbanks. http://www.adfg.alaska.gov/techpap/TP%20437.pdf

Holmberg, H.J. 1985. *Holmberg's ethnographic sketches*. Rasmuson Library historical translation series, Vol. 1. University of Alaska Press: Fairbanks, AK.

Hunn, E.S., D.R. Johnson, P.N. Russell, and T.F. Thornton. 2002. *A study of traditional use of birds' eggs by the Huna Tlingit*. National Park Service, Pacific Northwest Cooperative Ecosystem Studies Unit, University of Washington College of Forest Resources, Technical Report NPS/CCSOU/NRTR-2002-02, NPS D-113: Seattle, WA. http://www.cfr.washington.edu/research.cesu/reports/j9w88050018_tech_report.pdf

Hunn, E.S. and T.F. Thornton. 2010. "*Tlingit birds, an annotated list with a statistical comparative analysis*" [in] S. Tidemann and A. Gosler, eds. *Ethno-ornithology: birds, indigenous peoples, culture and society*. Earthscan: New York. ISBN 978-1-84971-338-2

Krause, A. 1989rep. *The Tlingit Indians: results of a trip to the northwest coast of America and the Bering Straits [1956]*. University of Washington Press: Seattle. ISBN 978-0-295-73971-7

Lachler, J. 2010. *Dictionary of Alaskan Haida*. Sealaska Heritage Institute: Juneau, Alaska. ISBN 978-0-9825786-5-0

de Laguna, F. 1990. "*Tlingit*" [in] W. Suttles and W.C. Sturtevant, eds. *Handbook of North American Indians*. 7: Northwest Coast. Smithsonian Institution Press: Washington, D.C.

Lee, M. 2002. *The cooler ring: urban Alaska Native women and the subsistence debate*. Arctic Anthropology 39(1–2), pages 3–9.

Oberg, K. 1973. *The social economy of the Tlingit Indians*, Monographs of the American Ethnological Society. No. 55. University of Washington Press: Vancouver.

Sill, L.A. and D. Koster, eds. 2017. *The harvest and use of wild resources in Haines, Hoonah, Angoon, Whale Pass, and Hydaburg, Alaska, 2012*. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 399: Douglas. http://www.adfg.alaska.gov/techpap/TP399.pdf

Thornton, T.F. 1998. *Traditional Tlingit use of Sitka National Historical Park*. [U.S. National Park Service] Final report, NPS contract #1443PX970095345: n.p. https://npshistory.com/publications/sitk/traditional-tlingit-use.pdf

Tidemann, S. and A. Gosler, eds. 2010. *Ethno-ornithology: birds, indigenous peoples, culture and society*. Earthscan: New York. ISBN 978-1-84971-338-2

Wolfe, R.J. and L.J. Ellanna. 1983. *Resource use and socioeconomic systems: case studies of fishing and hunting in Alaskan communities*. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 61: Juneau. http://www.adfg.alaska.gov/techpap/tp061.pdf