

RESPECT THE LAND

IT'S LIKE PART OF US

**A Traditional Use Study of Inland Dena'ina Ties to the
Chulitna River and Sixmile Lake Basins,
Lake Clark National Park and Preserve**

Douglas Deur, Karen Evanoff, Jamie Hebert
and the Dena'ina Knowledge-Holders of Nondalton

RESPECT the land.
And RESPECT the water.
The land, it's like part of us. You need to treat it right.

You don't just kill animals.
You only kill what you need and show your RESPECT.

You don't even tease a moose. We have a lot of stories about that:
kids teased a moose and the game all went away.

[It's all about] RESPECT.

Thousands of caribou used to come here...
they stopped because people mistreated them...

Animals, you have to take care of them. If you don't treat them right, they will go away from you.
They give themselves to you [willingly], but they watch.
They watch how they are treated, and if you don't treat them right they will go.

- Gladys Evanoff

RESPECT the Land

- *It's Like Part of Us*

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Douglas Deur, Ph.D. | Karen Evanoff | Jamie Hebert

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Introduction

For countless generations, Lake Clark has been home to the inland Dena'ina people. This unique and vast fresh-water lake complex sits at the intersection of sprawling tundra, taiga, and jagged cordillera, dotted with villages. Here, village life has been sustained by herds of caribou, shorelines populated by moose and beaver, vast runs of salmon ascending from Bristol Bay, and other natural assets. But the area's uniqueness extends beyond its abundant natural resources. Also unique is the National Park Service (NPS) unit that has occupied the region known as Lake Clark National Park and Preserve (LACL) in recent decades.

Initially created in 1978 under Presidential Proclamation 4622, the park came under the mandate of the NPS to manage park lands and resources for the benefit of human communities with ancient connections to the area. Management of the park by NPS came with instructions to not only protect the integrity of caribou herds, salmon runs, and other natural resources, but also the living culture of Dena'ina people. According to the terms of that order, Native culture and Native peoples' subsistence traditions were worthy of documentation and protection by the NPS. The order states:

“The continued existence of this culture, which depends on subsistence hunting, and its availability for study, enhances the historic and scientific values of the natural objects protected herein because of the ongoing interaction of the subsistence hunting is a value to be protected and will continue under the administration of the monument.”

Thus, the Alaska National Interest Lands Conservation Act (ANILCA) expanded on this mandate.¹ It directs LACL to protect the integrity of watersheds critical to the Bristol Bay fishery, as well as the subsistence traditions of Dena'ina people, many of whom live adjacent to the park in the village of Nondalton or close by. It is clear that from the beginning, a unique relationship was formed between NPS and the Dena'ina of the Lake Clark region. This relationship has persisted and evolved to this day.

Now, three and a half decades later, questions arise regarding the many lands and resources on which inland Dena'ina depend. Nondalton is beset by a range of social and economic challenges typical to modern villages. Both the Nondalton Tribal Council and Kijik Corporation make decisions about lands within their jurisdiction, while the National Park Service and other agencies seek to understand how agency actions—from land management to permitting—affect the subsistence culture of inland Dena'ina.

Of particular interest to the National Park Service are lands on the southwestern edge of LACL, where Nondalton traditional resource use is intensive, tribal and agency interests overlap, and land ownership becomes complex. This core area of resource use is thus addressed in this study. As defined here, the area is a loosely bounded triangle spanning from the upper Chulitna River Basin in the northwest to the Chulitna Bay area in the northeast, extending southward to include Nondalton Fish Camps located on the Newhalen River at the outlet of Sixmile Lake. The village of Nondalton sits in the center of this triangle. Our focus, however, is on land and resource use beyond the village. Nondalton is mentioned often, but the narrative focuses on lands beyond it.²

The many phenomena affecting traditional uses are not bounded by the somewhat arbitrary configurations of property lines. This includes the effects of management decisions, water quality, the movement of fish and wildlife populations, and other issues. As many consultants stated, focusing on one area as more important than another is misguided since the lands are interrelated and important. Still, some areas are more critical than others for subsistence use. For this reason,

while we focus somewhat on NPS lands, we also include traditional activities on tribal, corporation, state, or other federal lands potentially relevant to Native uses of the core area.

All of these entities—tribal corporation, state, federal—effect the traditional homelands of the inland Dena'ina, including lands in or immediately upstream from Lake Clark National Park and Preserve. Yet documentation of potential effects of their decisions on cultural sites and processes remains thin.³

The NPS has long recognized that by law inland Dena'ina cultural sites and place-based values and activities warrant documentation and special management.⁴ But discussion of the management responsibilities of park staff and of potential compliance responsibilities remain tentative without data on the nature and distribution of these sites, activities, and values. So to remedy the situation, Lake Clark National Park and Preserve cooperated with the Nondalton Tribal Council (NTC) in documenting lands and resources of cultural significance within the Chulitna River Basin and downstream, including the southern end of Lake Clark and Sixmile Lake. The NPS initiated this study with the recognition that park staff were being asked to document or report National Register properties throughout this area, but without sufficient information to do so.

In many respects, the study covers the Interior Dena'ina cultural landscape—involving both the meaning of the landscape to Dena'ina people and their interactions with this core part of their traditional homeland, as well as the physical traces (often very subtle) the community has left on the landscape. We discuss places with unique cultural and historical significance to Interior Dena'ina people within the study area—places associated with historical events and people, with ceremonial traditions, and with enduring crafts. Similarly, we document places and resources associated with teaching cultural knowledge, with healing, and with “storied landscapes.” This document brings together diverse types of information, organized in a manner that will assist all parties in assessing the cultural meaning and value of landscapes in the southwestern corner of LACL.⁵ Certain patterns are clear in the data. Interviewees attest to the deep cultural and social significance of fish camps, but also beaver camps and other subsistence stations within the study area—not only as places of resource procurement, but as hubs of cultural activity and the intergenerational transmission of core cultural knowledge. (Some, but not all, of these camps are included on maps within this report.) Many other aspects of Dena'ina culture are sustained by these places, such as traditional craft skills, knowledge of cold weather survival techniques, traditional travel skills, Dena'ina language and traditional stories, and traditional cultural prescriptions for the handling and honoring of game species. Specialized hunting and gathering traditions still practiced by Dena'ina harvesters are also linked to the riparian and lacustrine margins. Medicinal and food plant gathering is widespread in these areas as well. These layers of cultural significance are reflected in longstanding Dena'ina place names found across the landscape. So too, some portion of the names are shown on the maps in this report.

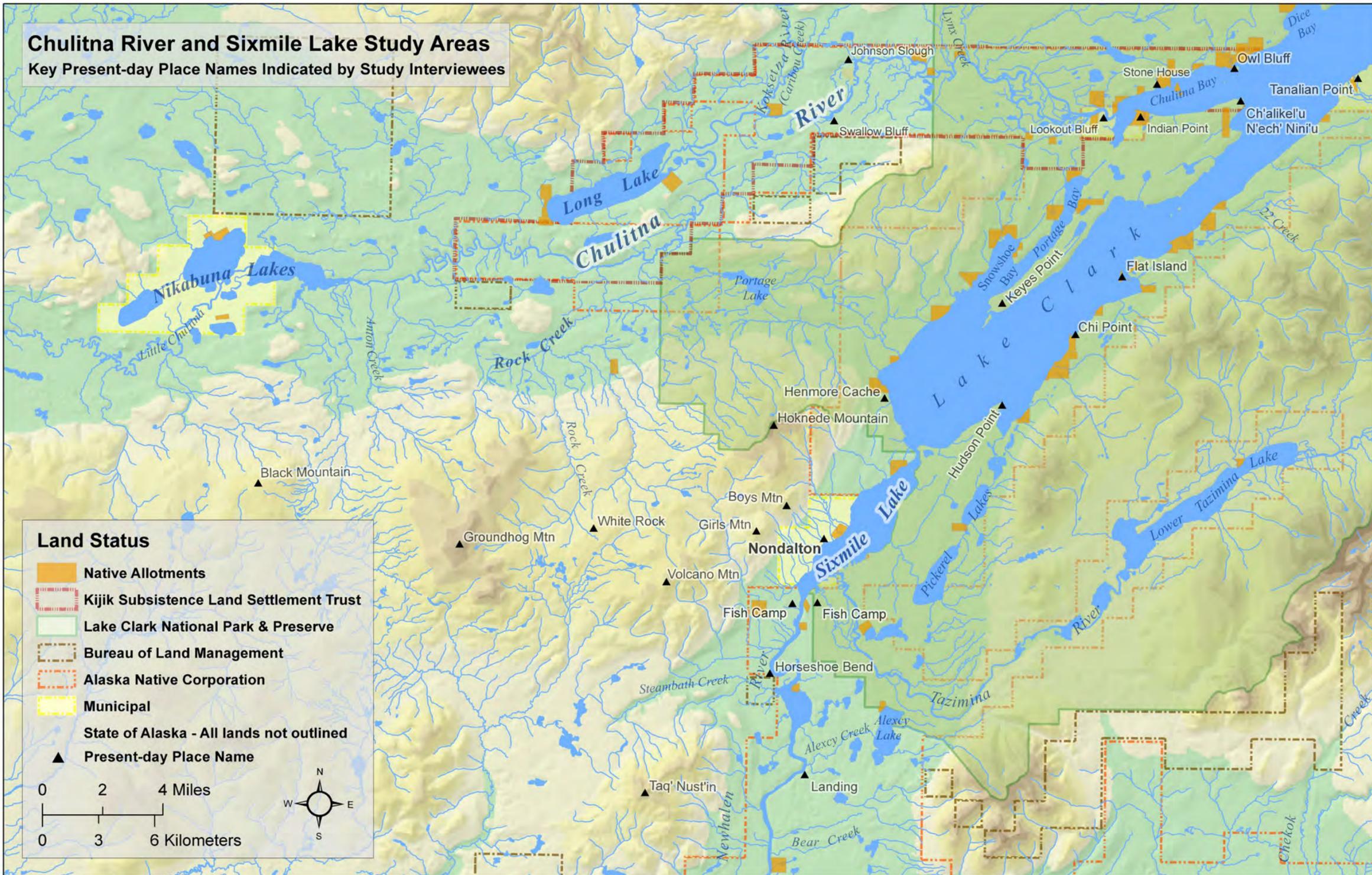
Trails of deep antiquity pass through the study area, and these features have a cultural significance extending well beyond their usefulness for transportation. Not only do the trails link Nondalton and other communities in search of fish, game, furs, and other materials, but they serve as critical transportation networks linking all of the Interior Dena'ina communities from Nondalton to Lime Village to the upper Mulchatna and beyond. Furthermore, this broad landscape is dotted with a range of culturally modified trees with functions including marking of trails, improving views from hunting lookouts, and providing emergency shelter along travel corridors. These physical traces of past human activity are often quite subtle, but this is no surprise. Inland Dena'ina people traditionally use extensive territories, guided by traditional ethics and values that discourage making dramatic or destructive changes to the landscape. Still, traces are to be found in the forms of villages and campsites (both active and abandoned), trail networks, culturally modified trees and vegetation, and myriad subtle traces still visible on the landscape, providing clues to the past and future of traditional land use.

Burials of Dena'ina people are also widespread throughout the inland Dena'ina homeland. This includes everyday people and those of unique significance to tribal history. Fortunately, burials are distributed in geographically patterned ways that assist land managers in predicting the locations of undocumented or poorly documented burial sites. Ceremonial and spiritual landmarks also figure prominently on the land, their significance encoded in oral tradition. The importance of these sites is still acknowledged and respected by some portion of the community in spite of two centuries of Russian Orthodoxy.



Sixmile Lake, with Nondalton below and the mountains of Lake Clark National Park and Preserve in the background, as seen from berry picking grounds on Blueberry Hill.

DOUGLAS DEUR PHOTO.



It is hard to overstate how numerous and widespread throughout the Chulitna and Sixmile basins are sites of significance to Dena'ina people. As many interviewees attest, the entire study area is considered part of a complexly interconnected subsistence resource territory. Looking at a map of the entire study area, and asked to mark places of importance upon it, one interviewee observed:

“We could circle the whole map; there’s blackberries, cranberries, [high] bushberries, currants, blueberries, salmonberries... groundhog squirrels... spruce hen, brown bears. There’s always a brown bear... A bunch of birds up there too...moose....caribou....all over there” (FS).

Yet the value of the landscape goes well beyond its subsistence uses and potentials. Campsites, trails, burial sites, sacred sites, storied sites, named places, and many other kinds of culturally significant sites overlay the everyday subsistence geography. The distribution of culturally significant sites is especially dense along the riparian and lacustrine margins, as well as along major winter and summer trails, becoming more diffuse with distance from major pathways. Yet though some use areas are spread out, cumulatively they fill out the study area map. Effects on any piece of land suggest a range of economic, social, and cultural consequences for the integrity of Dena'ina cultural use of the landscape.



Interviewing and reviewing project maps with Nondalton residents, Nondalton Community Center. KAREN EVANOFF PHOTO.

As the title of this report attests, access to the land and resources of the study area is integral to the identity of modern inland Dena'ina people: “The land is really, really important to this village” (GA). Without access, many genuinely fear for the survival of their people. Concerns about the outright extinction of Dena'ina culture and community are expressed by some interviewees, so that the many challenges to Dena'ina subsistence and other resource uses are described as existential threats. Many elders report that their ancestors foresaw, even prophesied, a time when they would lose the land and access to the land—prophesies that render cultural knowledge transmission an urgent matter indeed, including not only traditional ecological knowledge, but values like “respect” for lands and resources known to conserve and sustain prey species. Access, knowledge, and respect are critical to the culture and necessary for its survival. Loss of these things would leave the Dena'ina vulnerable not only to hardship and hunger, but even extinction, if they do not rise to the occasion. For many families, this makes intergenerational transmission of cultural knowledge a matter of profound, urgent importance.

As interviewees attest, so much has already been lost—through religious conversion, residential schools, and economic integration into the non-Native world. Families report they have lost access to particular lands and resources throughout

their traditional territory, and many natural resources have suffered from development such as mining or poorly regulated commercial fishing in the early 20th century. There is much concern about “younger people not doing things the right way.” No matter their age, Nondalton residents express concern regarding the erosion of traditional knowledge and values: “to me, it seems like nothing’s getting passed on as well as it used to be... No one’s learning it. We’re going to eventually lose it” (RK). Yet there is also considerable hope. Tribal youth continue to value the lands and resources that sustained their elders, and each year a growing number of young people take part in organized cultural events that might sustain their knowledge and values into a future of their choosing.



Dena’ina elder Nicholai Cartikoff sharing information relating to burial sites along Newhalen River, with NPS archaeologist Rhea Hood, who enters site data into a GPS unit for later mapping. KAREN EVANOFF PHOTO.

as a guide, we focus this report especially on the deeper cultural significance of the land and resources, focusing on the values, not just the objects, of significance. While material dimensions of subsistence, for example, are well documented, past studies tend to focus on material subsistence—on resources, overlooking nuanced cultural values and practices that explain the deeper meaning of places and resources. Because an abundance of hard data is available in state and federal reports, we see little need to recap the figures here. We do draw from earlier studies, however, as many insightful researchers have worked with the Nondalton community in recent decades, and their observations significantly corroborate and provide context for the findings of the present study. We also include project maps in this report that demonstrate the locations of many places described in the text in more general terms. Not all places of cultural and historical significance are necessarily called out in the text, so we direct readers to maps to understand the broader distribution of places described here.

The research team sincerely hopes this documentation helps guide, inform, and inspire future generations of inland Dena’ina who wish to understand their rich heritage on this land. So too, we hope the documentation is of use to the National Park Service staff and other parties seeking a more meaningful and coherent discussion regarding the future of land and resource management within the study area.⁶ We are confident that such discussions, carried out openly and with access to a body of accurate information about the cultural significance of the study area, will foster protection of the resources that matter most to the Dena’ina people of Nondalton and surrounding communities. In the process, this study might help all parties to ensure the viability of the Dena’ina traditional lifestyle for generations to come.

This balance of concern and hope helped foster considerable community support for the current study. Some tribal members suggest this kind of cultural documentation is essential, and even a spiritual obligation, to instruct not only tribal youth but also outsiders who may not fully understand or respect Dena’ina values and practices. “I’m not trying to say we have to change our ways, but we have to make our ways understandable to the outside world” (RK). Some believe that the ancestors are watching, and expecting the elders of today to collaborate in documentation and teaching efforts so that traditional values and competencies will endure: “Those who have crossed over want us to do this” (AN). “Really, it’s up to us to pass it on because we’re the next elders coming up” (KE).

Taking the community’s concerns



Research team members floating the Chulitna River while gathering information and GPS data on traditional Dena’ina land and resource use.

DOUGLAS DEUR PHOTO.



Newhalen River, downstream from Nondalton. KAREN EVANOFF PHOTO.

The Physical Setting

Let us introduce you to our study area, encompassing a core part of the inland Dena'ina homeland. It lies on the Alaska Peninsula in southwest Alaska and includes both the Sixmile Lake watershed and the Chulitna River watershed—the latter representing the largest river basin in the entire Lake Clark area, spanning a full 1,160 square miles. Of that sprawling Chulitna River Basin, the lower 158 square miles lie within Lake Clark National Park and Preserve.⁷

Linking this broad area is Lake Clark—the sixth largest freshwater lake in Alaska. A long, glacial lake, Lake Clark stretches approximately 45 miles in length, and varies from 1.5 to 5 miles in width. Though it is fed primarily by glaciers, nearly one-third of its water comes directly from the Chulitna River. As a result, water quality and habitat conditions on the Chulitna affect the overall health and environmental integrity of the entire Lake Clark Basin.⁸ Through a narrow channel, Lake Clark flows into Sixmile Lake. It also flows into the Newhalen River, which subsequently follows a course flowing into Lake Iliamna and draining into the Kvichak. This course ultimately empties into the ocean at Bristol Bay on the southwestern coast of Alaska.⁹

Łi Ta'α: Glacier Water

By Antone Evan

*Qizhjuh Vena Qizhjuh Vena veq'atl'a ghini
tustes ghu li yan nlan ha t'ent'a Dzel Ken teh.*

*Yi ghini idghalzex ch'u k'etnu gguya
q'andazdlen ha t'ix li ta'a nlan ha.*

*Ghuh q'andazdlen ch'u Chuqutenghehtnu
dahkadilax ha*

Yehdi ven edilax [Qizhjuh Vena Q'atl'a]

Łi Ta'a ghini

Yi edilax ch'uq'u Qizhjuh Vena ku'u edilax.

Yi edilax ch'u Nundaltin Vena kiq'u edilax.

Nughil Vetnu t'ech' ku'u hkadilax.

Nilu Vena ku'u edilax,

*Nilan Q'estnu Q'estsiq' nishdelax ha q'uyehdi
nuti at nik'udelax*

Yi li ta'a ghin nuti gheli edilax.

*Łi ta'a ghini minłni ghini qut'ana nughedel
qich'a shughu nidelax da.*

Ts'itsatna ghuna dach' qeyel dghinih.

*Up at the head of Lake Clark, up in that valley,
there are passes in the Alaska Range where
there are glaciers.*

*When the glaciers start melting, all the water
flows into the river.*

*And it flows down then it flows into 'by the
cache trail river'*

And then it forms the lake (Little Lake Clark).

That glacier water.

It forms 'people gathered lake' [Lake Clark]

*And then it forms 'extends across lake' [which
is known as Six-mile Lake]*

*And then downstream it flows also to 'current
descends river' [Newhalen River]*

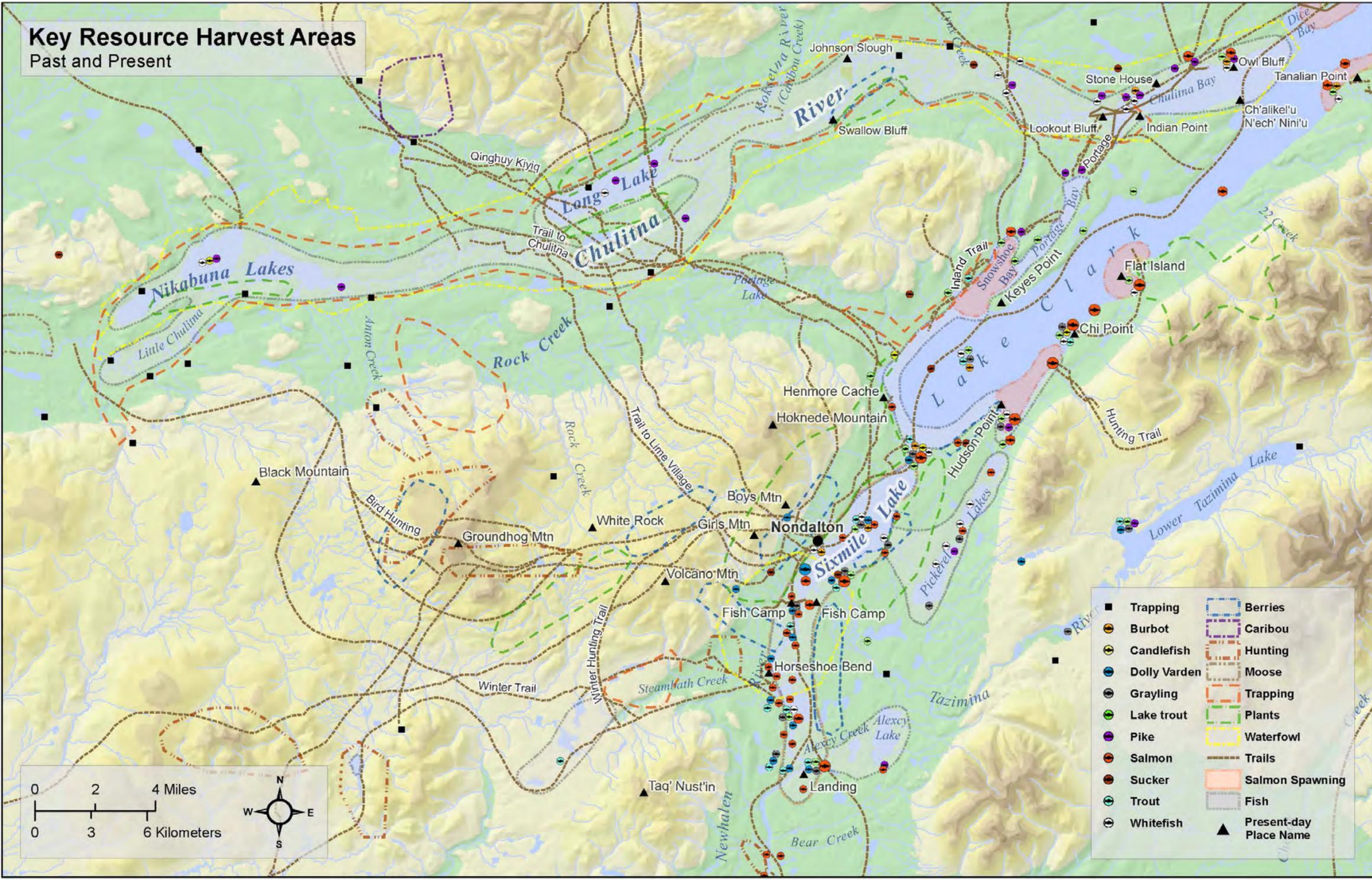
Then that forms 'islands lake' [Lake Iliamna]

*And then it flows down to 'islands outlet stream'
[Kvichak River] and it goes out into the ocean.*

*That glacier water [from the head of Lake
Clark] travels all the way into the salt water.*

*That glacial water travels farther than human
beings, that water goes farther than people
can travel.*

This is what the ancestors used to say.



MAP 2
Resource Harvest Areas
KEY: Past & Present

It is hard to overestimate the reach of this lake system. Upstream from Nondalton is one of the most significant lake systems in Alaska, including Sixmile Lake, Lake Clark, Little Lake Clark, in addition to smaller lakes. Other major tributaries of Lake Clark include the Tanalian River, *Nan Qelah Vetnu* (Miller's Creek), *Ch'ak'daltnu* (Kijik River), *Ch'alitnu* (Chulitna River), *Nikugh Vena* (Nicovena Lake), *Nuch'tnashtnunhtnu* (Currant Creek), and *Q'uk'tsatnu* (the Koksetna River or 'Caribou Creek').¹⁰ And well beyond the study area are lands traditionally used and occupied by Dena'ina people that are relevant to understanding the study area even if they lie beyond it. For example, approximately 40 miles north of Lake Clark is Dilah Vena (Telaquana Lake) and the Telaquana River, both of which flow into the Stony River. Huch'alitnu (Swift River) and the Stony River are tributaries of the Kuskokwim.

Though situated in a region of stunning high peaks, the study area is of intermediate elevation, with broad flats and low mountains reaching an average altitude of 1,080 feet, with a mean slope of 7%. Only a short distance away, however, the Alaska and Aleutian mountain ranges converge on the opposite side of Lake Clark with peaks between 4,000 to 7,000 feet. This makes for a diverse and dramatic landscape with extensive alpine glaciation.¹¹ Indeed, the Alaska Range is host to four semi-active volcanoes rising above the surrounding peaks to elevations near 11,000 feet. Each of these volcanoes is a prominent character in Dena'ina oral tradition.¹²

Weather and climate vary considerably within inland Dena'ina territory. Climate zones transition from maritime in the coastal region, to arctic and boreal in the interior. Average annual precipitation reaches 26 inches, with much of that falling as snow. Weather conditions can be dramatic due to the juxtaposition of prevailing winds and rugged mountain ranges—with blustery cold north and northeasterly winds ushering in winter storms, and southerly windstorms in summer producing surf on larger lakes. Boat travel can be rendered dangerous in these summer conditions. As Dena'ina elders often note, weather is unpredictable in any season. Observations of wind patterns and cloud formations are the most reliable sources of weather prediction.¹³

Summer temperatures may be warm, with average temperatures ranging from 42 to 62 degrees, accompanied by frequent light rain. While in winter, average temperatures drop to a range of 6 to 30 degrees, accompanied by an average of 64 inches of snowfall. In October or November, creeks, ponds, and small lakes freeze following the first snowfall,¹⁴ and some lakes become traversable for part of the year. Larger lakes including Lake Clark and some rivers freeze to varying degrees. In recent years, freezes have been less predictable, with Lake Clark remaining significantly ice-free, or with large tracts of thin ice—a weather phenomenon with far-reaching consequences for Dena'ina travelers.¹⁵ Break-up of the ice generally occurs in April or May depending on annual weather conditions.¹⁶

Variability in the region's climate and geology contributes to vast diversity in every respect. The study area stands apart for its diversity of habitats, including lakes, rivers, spruce-birch forests, open dry tundra, and mountains, as well as its diversity of plant and animal life.¹⁷ Especially along streams and on hillsides one finds alder (*Alnus viridis*), willows, shrubs like Labrador tea (*Rhododendron groenlandicum*), bunchberry (*Cornus canadensis*), and Bog Star (*Parnassia palustris*). Dense forests of white birch (*Betula papyrifera*), white spruce (*Picea glauca*), and black spruce (*Picea mariana*) are found throughout the area. In addition, one finds a growing number of thickets, consisting of new forest containing these same trees. Elders often mention that their entire homeland, including much of the study area, is getting brushier and more densely wooded: "Definitely thicker, the [elders] were saying. A lot thicker so it's not as easy for moose to get around" (RK). The thicker brush makes transportation challenging. It also complicates hunting, in part by increasing the risk of inadvertent bear encounters—a growing threat in recent years.¹⁸ Most attribute the increase in bear encounters to climate change or other overarching environmental changes, with additional factors being fire suppression and the decline of indigenous burning practices. Finally, ground cover in the study area is composed of mosses and lichens (such as the reindeer lichen, *Cladonia rangiferina*), fireweeds (*Epilobium angustifolium* and *Epilobium latifolium*), Mountain harebell (*Campanula lasiocarpa*), and a multitude of berries such as dwarf blueberry (*Vaccinium uliginosum*), lowbush cranberry or Lingonberry (*Vaccinium vitis idaea*), highbush cranberry (*Viburnum edule*), and crowberry or blackberry (*Empetrum nigrum*), to name a few. The primary soil types—spodosols, histosols, and andisols—reflect the dynamic geology, cold climate, and coniferous forests of the region, the soils providing a substrate for the myriad habitats of inland Dena'ina territory.



A region of lakes and rivers. NPS PHOTO / J. MILLS.



Sockeye salmon (*Oncorhynchus nerka*), a staple of Dena'ina cuisine and a focal point of Dena'ina cultural life, in a subsistence fisherman's net, Chulitna Bay.

DOUGLAS DEUR PHOTO.

char (*Salvelinus alpinus*), lake trout (*Salvelinus namaycush*), rainbow trout (*Oncorhynchus mykiss*), mountain or 'brook' trout (*Salvelinus fontinalis*), humpback whitefish (*Coregonus pidschian*), and round whitefish (generally referred to here as 'whitefish', also referred to as 'least cisco'). Within the Lake Clark basin, the Chulitna River is the only known spawning habitat for the humpback whitefish.¹⁹ And an estimated 1.5 to 6 million sockeye travel each year from the ocean, via the Kvichak and Newhalen River to spawn in the many streams and rivers of the Lake Clark Basin, including the Chulitna, making it one of the largest intact wild fisheries in the world.

For the full span of remembered time, this landscape—teeming with abundant resources—has been home to the inland Dena'ina. As a result, Dena'ina understand this landscape. They know that its abundance and diversity is integral to almost every aspect of their cultural practices and beliefs. All of the habitats we have mentioned here, and all of the major landforms in the region, are connected to Dena'ina life. These connections include on-the-ground connections—literal trails—as well as countless generations of occupation and use, and a persistent Dena'ina oral tradition fundamentally linked to the landscape in every way.

Land and animals are likewise abundant and diverse in the region. Large game are widespread, including caribou (*Rangifer tarandus caribou*) and moose (*Alces alces*), black and brown bear (*Ursus americanus* and *Ursus arctos*), and Dall sheep (*Ovis dalli*). Also abundant are smaller species, such as beaver, lynx, fox, ground and red squirrel, porcupine, marten, Arctic and snowshoe hare, mink, land otter, ptarmigan, spruce grouse, and migratory ducks and geese. The names of key animals dwelling around landmarks feature in the landmarks' names—with Groundhog Mountain being a prime example. In recent times, sightings of cougars and coyote have been reported in the study area, though this signals a remarkable departure from the normal range of these species. Some interviewees suggest their range is expanding, however, or that isolated animals have arrived in the area.

Of course, in this region fish species are abundant and diverse as well. This includes all five species of salmon—especially sockeye salmon (*Oncorhynchus nerka*), but also Arctic grayling (*Thymallus arcticus*), burbot (also known as lingcod or lush) (*Lota lota*), longnose sucker (*Catostomus catostomus*), Northern pike (*Esox lucius linnaeus*), Dolly Varden (*Salvelinus malma*) and Arctic



MAP 3
Nondalton, Sixmile Lake & Chulitna River within the larger Lake Clark Basin watershed.
MAP COURTESY LAKE CLARK NATIONAL PARK & PRESERVE

Inland Dena'ina Land & History

A Brief Introduction

The traditional territories of the Athabaskan-speaking Dena'ina people cover vast expanses of southwestern Alaska, totaling no less than 41,000 square miles, give or take. Ranging from the tundra of southwest Alaska to the misty inlets of the saltwater coast, Dena'ina traditional lands cover the interior region west of Cook Inlet, including not only the Chulitna River Basin and Sixmile Lake, but also the Lake Clark basin, the northeastern shores of Iliamna Lake at the head of the Alaska Peninsula, lands along the Newhalen River, and the upper Mulchatna River extending northward into the Stony River region.²⁰

Historically, inland Dena'ina maintained shared geographical, linguistic, and socio-cultural borders with a number of neighboring communities including Yup'ik people to the west and southwest. The upper Chulitna River Basin was in many respects close to this cultural boundary, meaning it sometimes served as a point of cross-cultural contact long before European arrival, “an area of cultural and linguistic interface” as Branson²¹ suggests. Dena'ina oral tradition mentions non-resident Yupik and even Aleut people traveling into the Chulitna Basin and, from there, into more interior lands along Lake Clark. Though relations were sometimes tense between the inland Dena'ina and these groups—a critical theme in certain oral traditions, it became increasingly collaborative over time.²²

Within the study area, specific places relate to this unique history. For example, during the Russian period, Aleut groups often passed into the region to trade and sometimes fight with Dena'ina communities. Groups of Aleuts traveling through the interior maintained a campsite on the south side of Lower Nicovena Lake, occupying a site that was grassy and treeless. The Dena'ina people suggested the Aleut people were afraid of the forest. In any case, from this camp, the Aleuts often traveled downstream to Indian Point where Chulitna River meets Lake Clark, to trade and sometimes participate in subsistence harvests alongside Dena'ina people. Yet often their relations with the Dena'ina were strained. Battles between the two groups were not uncommon, nor was intermarriage:

“after the harsh period ..., there was trading going on and eventually the tribes were marrying from other tribes. ... And if you listen to Chada [Grandpa] Alexie singing, he also does it in another language too, all in the same song” (RD).

Today, inland Dena'ina occupy certain main villages. Nondalton, the principal focus of this study, sits on the west bank of Sixmile Lake. There are also such communities as Pedro Bay, at the head of Pedro Bay on the northeast end of Iliamna Lake; Stony River Village, at the confluence of the river by that name and the Kuskokwim River; and Lime Village, on the south bank of the Stony River, 50 miles from the Kuskokwim River junction. Iliamna continues to be a central hub of travel and cultural interaction that is also linked to the neighboring village of Newhalen—once principally Dena'ina but now a mix of Dena'ina, Yupik, and non-Native families. While the residents of these villages live apart, they remain connected by kinship and culture, by vast trail networks, and by an enduring interest in the Dena'ina homelands.

Much oral history, as well as linguistic and archaeological evidence, suggests that inland Dena'ina people were well established in the Stony, Mulchatna, Telaquana, and other basins to the north and west of the study area very long ago. Indeed, this area—called *Htsaynenq'* “the First Land” in Dena'ina—is sometimes suggested to be an early core homeland from which Dena'ina expanded in ancient times.²³ Attachments to this homeland persist in myriad ways. To this day, Nondalton residents usually pass through our study area in order to visit their early core homeland.

Prior to European contact, inland Dena'ina people were sometimes described as living in three or more distinct regional bands, centered on villages. Three of these were located in this “First Land,” while the fourth sat on the shores of Lake Clark. Summarizing oral tradition regarding band divisions, Kari and Kari state that there was “one on the Stony River at Qeghnilen village, one at *Dila Vena* (Telaquana Lake), one or more along *Vatts'atnaq'* (the Mulchatna River) or *Vandaztunhtnu* (the upper Mulchatna River), and one at *Qizhjuh* (Kijik) at Lake Clark.”²⁴ Each of these major villages central to a regional band were linked to a constellation of smaller villages within their cultural, social, and economic orbit.²⁵ The total number of villages existing throughout inland Dena'ina territory at this time is unclear,²⁶ but it is clear that some supported well over 200 people.²⁷ Likely some have defied documentation thus far, and may be recorded through archaeological or oral-history evidence in the future. Clearly, both forms of evidence have resulted in relatively new “discoveries” of nearly forgotten settlements in recent times.²⁸

Historically, inland Dena'ina village sites were chosen strategically based on multiple factors. Kari²⁹ proposed they were, for example, established approximately eight to 10 nautical miles from one another. Proximity to rivers and streams, particularly salmon streams, was also critical to village locations. Interviewees such as Nels and Rose Hedlund often make brief comments to this effect: “Fish was the important thing” (RH 1985); “They always lived near really somewhere where they could get fish” (RH 1985); “Game too” (NH 1985). Not only are rivers and streams an essential source of fish and fresh water for drinking, but they provide means of transportation in summer by boat, in winter by sled, and more recently by snowmachine.³⁰

Villages and camps are also sited based on proximity to fuel and timber sources, most often associated with boreal forests:

“The distribution of northern Athabaskans is normally associated with boreal forest habitat. In fact the presence or absence of necessary stands of spruce (white and black), Kenai and paper birch, mountain hemlock, tamarack, common mountain juniper, balsam poplar, quaking aspen, mountain and thin leaf alder, willow and dwarf birch played a primary role in group decisions regarding the location of villages and camps throughout the history of the Dena'ina.”³¹

Extensive resource territories were shared among bands. They “were large, averaging about 3,000 to 5,000 square miles. Active men typically knew the territories of two or three bands fairly well.”³² The major villages served as bases from which people moved to fish camps, trapping cabins, and other campsites. This was especially true during summer months (Morris 1986), when inland Dena'ina moved between semi-permanent and permanent camps, cabins, and villages to fish, hunt, and gather plants (Fagan 2008).

Inland Dena'ina after Russian Contact

These lifeways of cooperation and resource use among Dena'ina bands changed significantly in the wake of Russian exploration of the Alaska coast in 1741. Within a generation, effects of Russian trade expeditions into Dena'ina lands at Cook Inlet, expeditions aimed at harvesting valuable sea otter furs, among others, rippled throughout the Dena'ina world. Soon thereafter, the promise of beaver and other furbearing species brought Russians into direct contact with the inland



MAP 4
The Dena'ina language area, showing Dena'ina dialect boundaries, surrounding Native languages, and key historic Dena'ina settlements. MAP DERIVED FROM WORK BY JAMES KARI, COURTESY LAKE CLARK NATIONAL PARK & PRESERVE.

Dena'ina.³³ As they established themselves on the Alaska Peninsula, they encountered and documented the interrelated bands of inland Dena'ina centered on Lake Clark and the Mulchatna River region.³⁴ It is through these encounters that we first see in-print references to the Dena'ina, 'Tanaina,' 'Tenaina,' or 'Kennitze.'³⁵

In the 1790s, the Lebedev-Lastochkin Company moved into the Alaska Peninsula and Cook Inlet. They were chartered by the crown to expand Russian economic interests in the region, and proceeded to found fur trading posts at Tyonek and Old Iliamna. Neither post prospered or even endured on the landscape for long. Dena'ina people provided a few furs, but not nearly enough to meet Company demands. According to modern elders, this reflected the robustness of the Dena'ina's own internal economy, as well as traditional prohibitions on the wanton killing of animals for commercial profit.

When the Russians were unable to coerce the inland Dena'ina to intensify commercial fur harvests by plying them with offers of beads, cloth, and other small goods, they increasingly resorted to brutality.³⁶ As a result, skirmishes soon rose to the level of a regional conflict, with Dena'ina leaders mobilizing people even from villages not directly affected by Russian hostilities. By the end of the decade, the fur trading posts in both Tyonek and Iliamna were destroyed. The Russians were effectively routed out of the Dena'ina world. For many years, festering distrust remained between the inland Dena'ina and Russian traders that created barriers to traders hoping to access Dena'ina lands and resources.³⁷ It wasn't until after 1818 that the Dena'ina permitted the Russians to again build a fort in the Iliamna area.³⁸

Unlike some tribal communities, the Dena'ina generally refused to take up permanent settlement near trading posts, successfully retaining their autonomous and mobile existence on the landscape.³⁹ Instead, many families began to concentrate in more remote areas within Dena'ina territory—distant from the forts, but close enough to have access to outside goods and economic opportunities. Many from the Mulchatna and Telaquana regions began to move south and west, expanding the already large Dena'ina population along Lake Clark, Sixmile, and Iliamna Lakes. Often, kinship ties and ancestral roots of Mulchanta and Telaquana village families in these territories made the moves possible. From these southwestern portions of their traditional territory, inland Dena'ina maintained selective, often lucrative, modes of exchange with Russian and other Euro-Americans traders until the late 1800s and early 1900s.⁴⁰ But as the Russian trapping and trade networks expanded into their homelands over time, inland Dena'ina hunters and trappers increasingly sought to distance themselves from these entities. They avoided resource harvests in places frequented by Russians or their Aleut conscripts, instead focusing on parts of the territory not directly visited or frequently affected by Russian influence. Arguably, this only intensified the importance of the middle and upper Chulitna River Basin for subsistence use.

Throughout the 19th century, as the sea otter trade diminished and fur trade networks expanded inland, Dena'ina families became more directly involved in a fur trade centered on beaver, fox, and other inland species. Simultaneously, these same inland Dena'ina territories became more significant to regional and even international fur markets. The inland Dena'ina continued to avoid forced conscription into Russian service, retaining remarkable autonomy relative to many, especially coastal tribes in the Russian area of influence. Morris writes, "[The inland Dena'ina] were never subjugated and forced to work directly with the Russians ... middlemen were used in trade, and the inland residents were encouraged to work on a voluntary basis for the Russians."⁴¹ So the Russians sought influence by indirect means. For example, they sought to capitalize upon preexisting Dena'ina skills, technologies, and economic networks—bringing their reach indirectly to the Chulitna River Basin and beyond, under terms the Dena'ina could partially mediate and control.⁴²

As a result, some inland Dena'ina trappers began to adjust schedules and economic activities to allow for commercial harvests. Winter trapping activities intensified and trade goods became increasingly common in the villages.⁴³ The introduction of guns, metal traps, and large dogsled teams during this time allowed Dena'ina trappers to run longer trap lines, resulting in greater harvests to supply the fur trade in return for desired trade goods: "Trapping required residence in camps away from the winter village, as traplines were often as large as 100 miles or so ... Dog traction provided an opportunity to run longer traplines from a base camp and still access the winter village periodically during the winter months ..."⁴⁴ Mobility thus increased, as did the commercial harvest of furs, often conducted alongside subsistence hunting and other traditional pursuits upon the land.

Yet trapping was not the only way Russians influenced the inland Dena'ina at this time. Another enduring effect was the introduction of the Russian Orthodox Church. In nearly every village, Russian missionaries sought to convert inland

Dena'ina families to Orthodoxy. They started in the Mulchatna and Lake Clark areas in the 1800s, with Russian Orthodox priests arriving in the Iliamna area as early as 1838. Hegumen Nikolai was the first priest to conduct regular services among the Dena'ina, serving from 1845-1867.⁴⁵ In 1847, Nikolai traveled inland to perform services at Iliamna. He heard confessions and gave communion not only to residents of Iliamna, but also to surrounding community members who, upon hearing of his impending arrival, traveled to Iliamna to partake in his services: "Nikolai's [confessional] registers indicate that the Indians from three other Dena'ina inland villages such as Kijik (19 people), Mulchatna (47) and the Stony River area (31) also partook in sacraments."⁴⁶ A Russian Orthodox Church was built in Kijik in 1884.⁴⁷ Because the inland Dena'ina were so widely dispersed across the landscape, missionaries traveled extensively in the region, employing the assistance of Dena'ina guides.⁴⁸ Lime Village, another relatively small interior village, was periodically visited by missionaries; "Lime Village from the [Nushagak] Mission...yeah he'd go to all the way up [there]" said Nikolai Balluta of Russian Orthodox priest Father Wassillie (NB 1998).

Still, missionary influence was intermittent and often limited by the sheer distances involved. Missionaries "baptized, performed marriages, and held some religious services but had negligible impact on the lives of the Dena'ina at this early time."⁴⁹ Despite often friendly cooperation of the Dena'ina with Russian missionaries, the two groups had differing assumptions about Native conversion to Russian Orthodoxy. Conversion was seen by many Dena'ina not so much as the supplanting of one faith by another, but the addition of Orthodox principles to a larger, complex, and seamless pattern of traditional belief. As Townsend summarizes,

“Actually little extensive religious instruction occurred, although the Russian Orthodox Church had a devout following among the Tanaina, the religion was actually a syncretism of Christianity with the older shamanism and animistic beliefs.”⁵⁰

In practice, traditional values and beliefs persisted, even as Russian Orthodox church services became important pivot-points for community religious life.⁵¹

The cultural influences of Russian Orthodoxy persist. Orthodox events continue to not only shape community life, but to facilitate connection-building between inland Dena'ina communities. For example, the Russian Orthodox winter holiday, or 'Slavi,' which reflects both Orthodox and traditional Native observances, coincides with the Dena'ina's winter tradition of 'visiting.' During the first and second weeks of January, inland Dena'ina families have long traveled between villages throughout the study area, as far north as the Nushagak River and as far south as Iliamna and Nondalton.⁵² During these excursions, they not only visit, but trade goods and information with friends and family members. Similar to these shared winter traditions is the observance of Russian Lent and Easter, which occur in the spring:

“During this period of time, which can last up to seven weeks, most people eat only fish. The rainbow trout spawn in the spring just as lent is ending and the two sometimes overlap. In the past, they would go camping on Lower Talarik Creek for the entire lent season to fish for freshwater species, as they could not eat meat. They would stay until Palm Sunday and then return home to prepare for Russian Easter.”⁵³

Changes equal to and as profound as those brought by Russian traders and missionaries came in the late 19th and early 20th centuries. These occurred when Alaska was transferred into the possession of the United States. On March 30, 1867, the United States agreed to purchase the Alaska Territory from Russia. The Alaska Commercial Company replaced the Russian-American Company, and commercial extraction of natural resources expanded into new forms. The inland Dena'ina had engaged in economic pursuits and cash economies through fur trade, mining, and commercial fishing, all of which significantly affected the lands and lives of the inland Dena'ina. The creation of the Alaskan territorial government in 1912 expanded these changes, as would the founding of the State of Alaska in 1959.

In the first half of the 20th century, most traditional and historical uses of the study area persisted, while activities such as commercial trapping and gold prospecting brought newcomers, new competing claims on lands and resources, and sometimes new forms of employment for tribal members. NPS Historian, John Branson, compiled detailed documentation indicating the Trefon and Balluta families utilized the Chulitna Basin extensively in the 1920s, 1930s, and 1940s, from cabins both inside the basin and in places nearby. Like many families, they used the area for hunting, trapping animals for both commercial and personal use, and many other purposes. Yet during this period, many travelers also used the Chulitna River as a travel corridor—by boat in the summer and dogsled by winter. Some of these travelers crossed over the "Chulitna Portage," at the head of the Chulitna River Basin, a place where boats could be portaged a short distance between the upper Chulitna River and the Nushagak Rivers. This allowed summertime travelers to easily move between the two basins.⁵⁴



Lay reader, Billy Pete, and Chief Alexie Balluta, at the Russian Orthodox church in Old Nondalton, late 1930s. PHOTOGRAPH COURTESY OF JOHN LEE, H-500.

It wasn't until the 1900s that exploratory mining operations began in the region in earnest.⁵⁵ And between 1908 and 1914, a short period of intense mining activity transpired on the Mulchatna River and Bonanza Creek.⁵⁶ During this time, freighting for prospectors and traders became a lucrative form of employment, and a source of money and credit for the inland Dena'ina.⁵⁷ During the peak of the gold rush, developers attempted to develop a road with a horse-drawn tram that passed

through the study area from the vicinity of Nondalton, northwestward through the Chulitna River Basin, and to the Kuskokwim River region. As John Branson summarizes,

// There was an early 'railroad' here too ...that brought in a lot of those prospectors...the railroad was such a pie in the sky thing that it was called the 'Trans-Alaska Company.' It was out of San Francisco; a Mr. Crocker...a big shot with the railroad...he was I think the money behind it. Anyway, it was an impetus behind a lot of fur people coming in here, Euro-Americans. ...They had a few horses around here and the route was from Old Iliamna and it would have crossed right around Keys Point someplace or the Igiugig, would have crossed there, the narrow spot. And then gone over through the Chulitna River Valley and it was heading to Anvik on the Kuskokwim. The incentive was that it was a response to the Nome gold rush. If people could—who wanted to flock there could get to Iliamna Bay, then they would have this—I guess it was more horse drawn tram than a railroad."⁵⁸

For well over a century, the presence of surveyors, propelled across the landscape by dreams of mineral wealth, has been a time-honored tradition within the study area, creating frictions between subsistence users and introduced economic ventures.

Inland Dena'ina families did find employment in the commercial fishing and canneries of Bristol Bay, as large-scale commercial fishing was established there in the 1880s. As Columbia River salmon fisheries waned, they relocated assets to Bristol Bay, reconstructing factories and hiring large numbers of Native laborers who possessed ample experience catching and processing wild salmon. The first regional cannery was brought to Bristol Bay in 1883 by the schooner *Neptune*, and stationed on the Nushagak River to process fish for the Arctic Packing Company. Operations continued to expand so that "[b]y 1920 there were 25 canneries operating in the Bay and in 1922 the first floating canneries arrived."⁵⁹ In the early years of the Bristol Bay commercial fishery, only men and boys went to "the bay" during the summer months. Yet participation in the canneries and commercial fisheries increased after the 1930s, especially during World War II and the immediate post-war years, when Dena'ina women found new opportunities for employment as non-citizens were barred from working. For some, this was their first exposure to hourly wage labor.⁶⁰

Because of this development, many inland Dena'ina families adjusted summer and fall salmon fishing practices to accommodate the commercial fishing season. Men who traveled to Bristol Bay to work full time in the summer months often missed the peak return time of the *k'q'uya*, or "bright" sockeye salmon in their home communities.⁶¹ This resulted in the transfer of many responsibilities for the initial *k'q'uya* salmon harvest to the women. This feminization of the peak salmon harvest persists in some form to this day as men continue to take seasonal or year-round jobs.⁶² Once the commercial fishing season is over, the men return to summer and fall fishing camps to assist in the second salmon harvest, that of *ghelica*, or redfish, "fallfish," or red salmon (spawned-out sockeye).⁶³ Still, Nondalton families have a relatively limited investment in the commercial salmon fishery relative to villages such as Iliamna and Newhalen, reflecting not only geographical distance but social and economic distance from the fishery.⁶⁴ Ceremonies and social practices relating to the salmon harvest persist and are robust in inland Dena'ina villages today, intersecting in complex ways with the demands of modern fisheries and modern employment. Much of this plays out in Fish Camp, a venue to be discussed in greater detail in the pages that follow.



Dena'ina men working in the Bristol Bay commercial salmon fishery. NPS PHOTO H-2018.

Historical Change in Inland Dena'ina Settlement

For centuries, the inland Dena'ina remained a highly mobile people, strategically getting around boundaries and regulations imposed on them with the arrival of Russians and Americans. Life was centered on a number of villages, increasingly Kijik, an ancient village of unique significance and resource abundance. Many Dena'ina families "found ... the best place to be was Kijik.... that's one of the biggest [former village sites] around" (RD). Archaeological evidence suggests *Qizhjih* was inhabited for no less than 12,000 years, give or take, in large part due to the unique abundance of the place. In spite of their relocation and increased consolation in the Lake Clark region, inland Dena'ina remained "quite mobile well into the mid-decades of the 1900s, [while] demographic and settlement pattern changes were relatively recent and, to a great extent, resisted ..."⁶⁵ Seasonal use and occupation of the study area was widespread, and settlement patterns remained quite flexible. In the 20th century, however, a combination of factors contributed to a

rearranged pattern of settlement and land use that persists to this day. New economic pursuits, severe epidemics, and government mandates requiring children to participate in formalized education all contributed to a rearrangement of the geographies of Dena'ina settlement and subsistence.⁶⁶

At first consolidation occurred gradually, following opportunity rather than calamity. The Dena'ina gradually moved to winter villages that gave them an expanded range of social opportunities, while also improving access to the possibilities of the fur trade and other economic opportunities. The inland Dena'ina near *Dila Vena* (Telaquana Lake) and those along the *Vatts'atnaq'* (Mulchatna River) and *Vandaztunhtnu* (upper Mulchatna River) joined friends and family already established at *Qeghnilen* Village and *Qizhjah* (Kijik) near Lake Clark, but continued to maintain seasonal camps throughout their traditional homeland.⁶⁷ The term *Qizhjah*—literally “place where people gather”—is perhaps meaningful in this context. “They used to call it *Qizhjah*. But [now] they call it ‘Kee jick.’ ... That means there was lots of people there” (AC 1998). As Ellanna and Balluta noted,

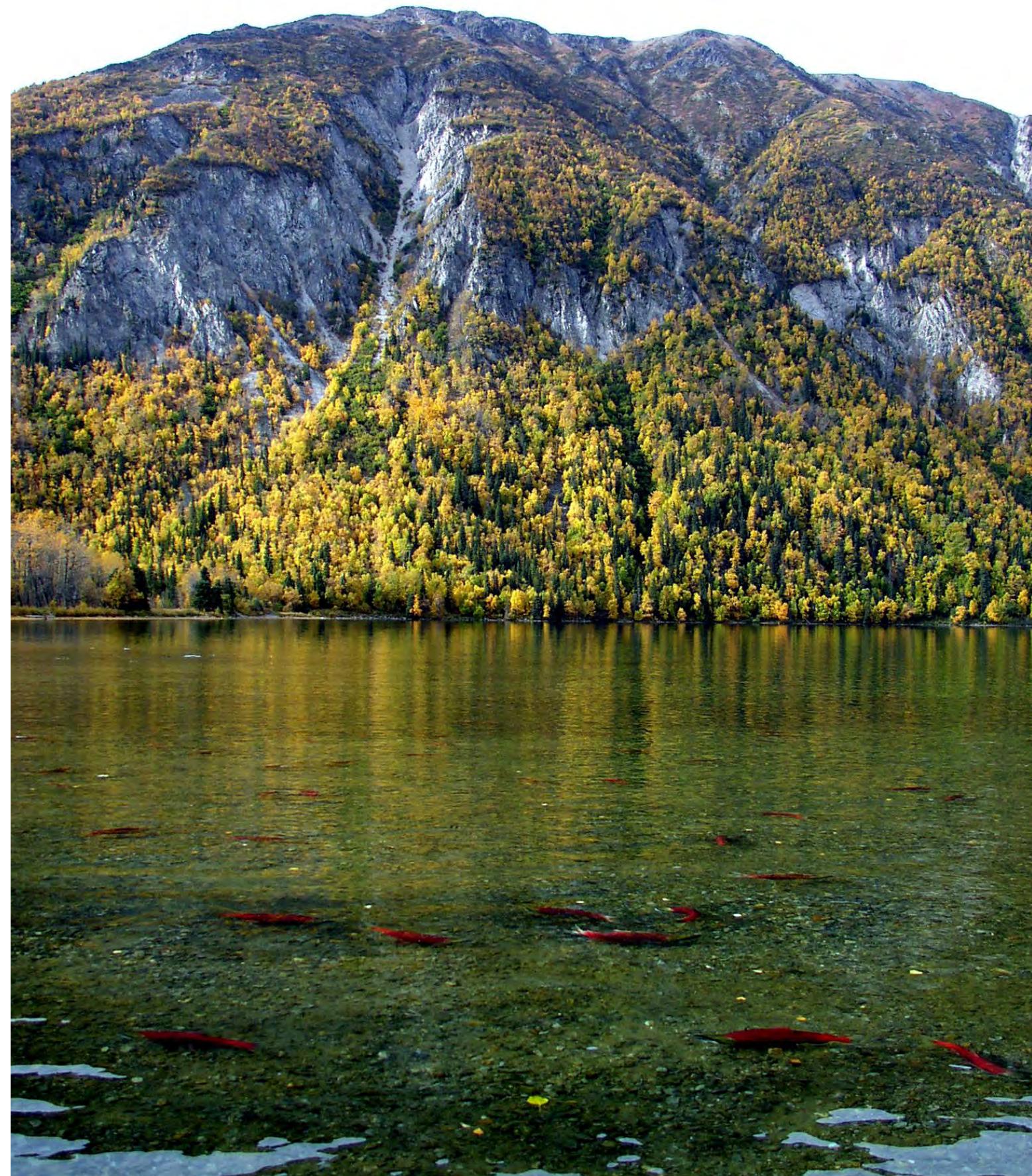
“Though the inland Dena'ina valued mobility, and tell stories of journeys on foot or by boat from, for example, the upper Stony River to Tyonek or from the upper Stony to the mouth of the Nushagak River in the 1800s, their participation in Euro-Americans economics, however marginal, encouraged centralization and relocation closer to sources of trade goods and potential employment. The effect of this was a decrease in the number of winter settlements and the location of those settlements in different areas.”⁶⁸

During this transition, the majority of the inland Dena'ina population settled on Lake Clark at the seasonal village of *Qizhjah*. At this time, resource harvests and other culturally rooted uses of the land intensified.⁶⁹ According to Bill Trefon, Jr., *Qizhjah* became a place where different inland Dena'ina families gathered in the winter, even as they might seasonally return to ancestral villages for resource harvests:

“What Kijik was a long time ago, winter village ... they all gathered there for the winter. Long time ago, that was a gathering place after spring break up. After that they start traveling to the different hunting grounds. Like me—I was told I was on trapping camps up in Mulchatna as a little kid [with] dog teams. I don't remember that. I remember Kijik when I was a kid. And dog teams. ... It was trapping camps, a place for trapping. My dad and them was there, Arsini Delkittie was there, Virgil and them was always there. Uncle Benny and them lived down the beach a little ways. All winter camp. Trapping camps—it was a lot of fun” (BTJ).

OPPOSITE PAGE:
Spawning salmon, Kijik River.

NPS PHOTO / D. YOUNG.



Also important in this period of modern Dena'ina identity-formation was the settlement at Indian Point. Formerly a large seasonal settlement at the site where the Chulitna River enters Lake Clark, Indian Point is part of the present study area. Indian Point was a gathering place for people from every part of the inland Dena'ina multi-tribal trading center, situated a comfortable and defensible distance from the village at *Qizhjuh*. Generations of visits to the community contributed to the familiarity of inland Dena'ina people with not only *Qizhjuh*, but also Indian Point. This likely contributed to the seamless movement of people to the Lake Clark area in subsequent years. Well into the mid-20th century, the Indian Point community served as a base camp for spring and fall resource harvests, and as a multi-village gathering place. As Pauline Hobson recalls,

“I remember when I was a little girl there were lots and lots of people here –all in tents. A big row of tents. I'd run from tent to tent and there were people everywhere...they'd come up here in spring and fall. They'd come up here in spring for bird hunting. They'd do their fall fish, their pike and whitefish. They'd come right here from Fish Camp to begin their fall fishing. They picked berries here too...Everyone who had dogs came here...a lot of the people from Nondalton. There were dogs all over, tied off...I remember seeing that” (PH).

The area has continued to serve as a base of operations for subsistence and other activities in the Chulitna Bay and lower Chulitna River area into recent times. The continuance of this practice in part reflects the deep cultural memory associated with Indian Point's richness, and its importance to summer harvest activities. Like Kijik, a few modern interviewees allude to Indian Point as a “sacred place” due to its centrality in Interior Dena'ina history and culture:

“When I was hunting up there up at Chulitna, there by Indian Point, Steve and Butch and them were saying that used to be like a gathering spot, there used to be dog sleds all over the place up there...they say it was like a big party spot. It wasn't like an actual party but just like a gathering place, you know. Because that is a big spot for us for food in there; there's ducks, fish, there used to be a lot of moose. It was just a prime spot for us...You can pretty much say that whole spot and that whole area is just like a sacred spot for us” (RK).

A number of burials are reported at Indian Point, all “up high to keep it away from the water” (PH). Elders note that the land has eroded significantly at Indian Point in living memory, so that portions of the former settlement are in peril. In recent times, the NPS has overseen archaeological investigations at the site.

Until the arrival of epidemics overwhelmed the Dena'ina people, Kijik was occupied year-round. The epidemics began no later than 1836, when smallpox severely impacted the region, ostensibly contributing to early Dena'ina consolidation

in *Qizhjuh*. Other epidemics were reported in the later 19th century. While the scale of those epidemics is debated, the effects were clearly monumental, eliminating a number of villages, with survivors consolidating in larger settlements.⁷⁰ A measles epidemic in 1900-01 was then followed by the global influenza pandemic that began around 1918 and decimated Native communities throughout the region for another three or four years. As a result, many Dena'ina villages were eliminated, or consolidated by survivors.⁷¹ In 1902, in the wake of the measles epidemic, the residents of *Qizhjuh* made the decision to relocate to Old Nondalton on neighboring Sixmile Lake along with survivors from other Dena'ina communities. Elders such as Nick Carltikoff and Pete Koktelash described how the 1901-1902 measles epidemic played a major role in the move of the inland Dena'ina away from *Qizhjuh*: “Kijik, you know, lots of people over there. All belong to around here—old people. Lots of people over there [Kijik village]. There's some kind of sickness. Lots of guys dying—dying for two years. ... That's when they move to [Old] Nondalton.”⁷²

Coupled with these horrors were other natural disruptions, including the eruption of Mount Katmai in 1912. This eruption caused an immediate and dramatic shift in big game migrations. Rick Delkettie's parents, for example, described to him how the caribou migration was disrupted, as all of the animals moved north to find food not blanketed in ash. Dena'ina families were forced to do the same during hunting season:

“The movement was from natural disaster. When I hear my dad talk about when Katmai, when Katmai blew up. ... [That happened] a long time ago... They were in about a knee deep of ash right here. And when you dig in the ground you could see ...So when that happened, everybody here had to go north to get game. Everything moved. They moved out of the area. ... [T]hey went to Twin Lakes, you know, Lime Village area, Twin Lakes.” (RD).

The immediate effects of the eruption of Mount and Mount Katmai were dramatic and caused noticeable changes in local plant and animal life.⁷³

The influenza pandemic, combined with the effects of the eruption and declining salmon runs due to downstream canneries, dislodged those who had not yet relocated. Together, these shocks pushed a large majority of the inland Dena'ina community onto the shores of Sixmile Lake—within the heart of the current study area. By 1914, *Qizhjuh* was completely abandoned as a permanent settlement⁷⁴ as it was transformed into a large graveyard, with survivors burying their loved ones in unhealthy and unsafe, due to the enduring effects of disease, death, sadness, and the presence of so many human remains. Referring to the move from *Qizhjuh* to Old Nondalton on Sixmile Lake, Rose Hedlund (RH) explained, “They always believed in that, that you should move when something happens like that. ... [It was] tradition, and believed that it was bad to live there after anything happened like that” (RH 1985). Though currently not an active village, *Qizhjuh* [hereafter “Kijik”] remained a highly significant cultural and historic site. It is still revisited seasonally as part of the redfish harvest and, in recent times, for renewed social, ceremonial, and educational events by families returning from Nondalton. In recent years, Nondalton youth return to Kijik in large numbers as part of a cultural education event known as “Kijik Camp.”

Around the turn of the century, inland Dena'ina living in the Stony River area at the village of *Qeghnilen* and near *Dila Vena* (Telaquana Lake) faced challenges similar to those of Kijik, including the death of many people in epidemics. Thus, they were compelled to move to Old Nondalton. To this day, many Nondalton elders report their parents' or grandparents' generation were born in places other than Nondalton—for example, on the Stony River in the villages of *Qeghnilen*, Canyon village, or at a site referred to in Dena'ina as *Hsit*.⁷⁵ Rose Hedlund (RH) remembered a large village 10 miles above the Stony River, relaying, “I think that's where our [ancestors] come from is that ‘upper’ village I think...” (RH).

Some Nondalton residents recall living near *Dila Vena*, at a village called Trail Creek (*Ch'qut-ch'ishtnu*). As described in Ellanna and Balluta, "This site, referred to as Trail Creek (*Ch'qut-ch'ishtnu*) by the Dena'ina, is located approximately ⁷⁴ miles northeast of modern Nondalton and near Telaquana Lake (*Dila Vena* or *Vek'dilah Vena*)."⁷⁶ This community ceased to be a semi-permanent settlement around 1910 as its residents moved to Nondalton, though the old settlement continued to be used by some Nondalton residents. It is used as a subsistence area to this day. These villages all represent examples, since every settlement in the inland Dena'ina world arguably experienced displacement in the early 20th century. Some moved at once to the shores of Sixmile Lake, while others made the transition gradually, seasonally visiting the Nondalton community, which would become a permanent residence only in time.

The new settlement founded by the displaced was the original location of Nondalton (*Nundaltn*), now referred to as Old Nondalton, where the Newhalen River exits Sixmile Lake. The consolidated community was large enough to organize shared social activities and subsistence tasks, to maintain a consolidated church and school, and to continue to enjoy many aspects of village life in spite of the cataclysmic loss of so many people. The rich resources at Sixmile Lake, including a commanding position alongside one of the world's great salmon fisheries, was a significant draw to the area, contributing to the choice of Nondalton for this consolidated settlement. In an interview with Katherine "Katie" Hill Wilson conducted by Dorothy Hill on October 17, 1975, Katie relates how her mother spoke of the move to Sixmile Lake: "[T]hey came from Stony River way, that area, like they used to travel back and forth a lot... I guess really why they moved down because it was better living—because they had gardening, better fishing, stuff like that."⁷⁷

The move of Dena'ina from *Qizhjuh* to Old Nondalton also allowed residents better access to wage employment and commercial goods through its proximity to places like Iliamna, and to Bristol Bay canneries.⁷⁸ Yet dogsleds and other modes of transportation allowed these populations to continue traveling to and from outlying areas for resource harvests and other purposes.⁷⁹ Still, in the 1930s, the village of Old Nondalton was relocated. The move was deemed necessary because a growing gravel bar formed in the lake in front of the village "making landing boats impossible ... [And] the supply of wood for houses and firewood in the immediate area ... [was] exhausted, the ground never thawed in the summertime, the cemetery ... [was] nearly full."⁸⁰

But while it no longer has permanent residents, Old Nondalton, situated northeast of the current village site, continued to be used as a subsistence fishing location for pike,⁸¹ Arctic grayling, and whitefish.⁸² Other factors continued to bring families to the Nondalton settlement, even long after the epidemics had passed. For example, beginning in the early 1900s, government-mandated school attendance spurred the movement of inland Dena'ina toward permanent settlements like Old Nondalton, where Hannah Breece, a teacher hired by the Department of the Interior, established a school in 1910 and 1911. The school was near the Nondalton fish camps along Sixmile Lake. She describes her means of instruction:

“Large boys came to school at night. Women had their hygiene classes and did sewing and basketry in the afternoons. Children came all day. All listened and learned from everything, making the most of their schooling seven days a week, for we had Sunday school, too.”⁸³

Because in the spring many families moved away from winter villages to harvest resources in the Nondalton area and beyond, the Old Nondalton school was poorly attended. In fact, after Old Nondalton transferred locations to what is now called Nondalton in 1930, attendance was low in all seasons but winter, meaning a school building was not constructed until 1944.⁸⁴ Yet as the school year became more rigid and permanent structures were constructed within villages, small children often began staying with mothers or elderly relatives while parents continued the annual round of subsistence. Thus continued a tradition of a small number of subsistence harvesters supporting adults who stayed behind for the good of the community. Andrew Balluta, for example, described how his father's younger siblings stayed with their mother



Residents of Old Nondalton, 1936. Village Chief Zachar Evanoff is center. PHOTOGRAPH COURTESY OF IDA CARLSON CRATER, H-094.

during the school year, writing, "By the mid-1930s, my father's youngest brother and sister remained in the village with their mother in order to go to school."⁸⁵ Many families tried to resist the effects of schools on their traditional mobility while trying to keep families together. However, in time most reluctantly acquiesced to the new logistical demands of formal schooling.⁸⁶

During the late 1960s and early 1970s, the state government further tightened regulations regarding school attendance by rural Native communities. In fact, many inland Dena'ina children were sent to boarding schools at this time, within and outside of the state of Alaska.⁸⁷ Andrew Balluta comments on the measures taken to enforce these educational requirements, writing, "[T]he Bureau of Indian Affairs teacher told my mother that she should send the younger kids to boarding schools [in Eklutna] so that they could get an education. She reluctantly agreed, as it was presented to her as against the law not to have her children in school."⁸⁸ The boarding schools furthered assimilation by institutionalizing young children, immersing them in Western values, interrupting access to knowledgeable elders, enforcing the use of English to the exclusion of Dena'ina, and reducing opportunities for hands-on learning within the traditional Dena'ina homeland.⁸⁹ Many children who attended schools outside of Nondalton did not return home, finding employment in urban centers such as Anchorage and beyond.

By the 1960s, in part due to the effects of schools, the last few Nondalton Dena'ina who were truly mobile—following the traditional seasonal round of subsistence between camps and cabins without a single year-round home—reluctantly settled in to year-round homes within the village.⁹⁰

Today many inland Dena'ina find themselves balancing between two worlds. They are forced to balance a Western education and the realities of the cash economy with a strong cultural, social, and even economic interest in maintaining traditional subsistence lifestyles. This results in complex biographies, where people move between Nondalton, the land, and urban centers at different stages of life, forced to navigate the radical differences between these environments and social geographies. The path Martha Hobson Trefon followed during her lifetime is a common one. After being sent to boarding school, she received a Western education and subsequently found employment in a large urban center—yet ultimately returned to Nondalton to participate periodically in subsistence activities when feasible. As described in Ellanna and Balluta,

“Essentially, in the course of her life, Martha [Hobson Trefon] has gone from a relatively nomadic annual cycle of residence in hunting, trapping, and fishing camps, with periodic returns to her community base in Nondalton; to an experimental period of residence in Alaska's urban center, Anchorage, where she learned to become a village health aide; to the pattern of the present, remaining most of the year in Nondalton and moving to a more permanent camp site on Lake Clark whenever possible.”⁹¹

This pattern of returning to Nondalton exhibited by many inland Dena'ina demonstrates a kind of “hunger” for home, community, culture, and continuity. Without that imperative to stay or return home, elders note, the inland Dena'ina might be absorbed into distant cities and towns in the outside world, thereby ceasing to exist as a people.

The shifts we have described characterize the trend throughout the study area—not just the portion fronting Sixmile Lake. The Chulitna River Basin was not a major center of permanent settlement or large-scale ceremonial activity, but has always been central to interior Dena'ina traditions of hunting, trapping, travel, and religious and cultural expression. During the historical shift over the past century, as inland Dena'ina moved from Kijik to Nondalton, Chulitna became the midpoint between the two settlements. The Chulitna River Basin was one of the few hunting and trapping areas that continued to be the focus of regular and intense resource harvesting, more or less uninterrupted by this monumental demographic shift. To this day, and in spite of profound existential threats, the Chulitna River Basin and its environs continue to be a focal point for the most important and enduring traditional activities of modern inland Dena'ina people. The many ways this manifests, and the cultural significance of this connection, is a significant focus of this book.



Harnessing a dog team, late 1930s. PHOTOGRAPH COURTESY OF ROSE HEDLUND, H-1013.

Changes in Inland Dena'ina Transportation

Additional changes in Dena'ina settlement and subsistence geographies were precipitated by changing transportation practices in the 19th and 20th centuries. “Mobility [defined] Dena'ina existence,” as Fagan writes. “In the interior, people were constantly on the move, very often on foot, which meant that they carried all their possessions, their weaponry, and their food with them.”⁹² Though this might exaggerate traditional Dena'ina mobility, the point is helpful: Dena'ina life consisted of tremendous mobility between winter villages and places of subsistence, as well as social and cultural gatherings. Mobility was usually facilitated by foot, boat, or with individual dogs carrying small loads. Yet the Dena'ina of the 19th, 20th, and 21st centuries have had very different ways of getting around the landscape, allowing for changing settlement, social, and economic patterns throughout the study area. The matter of how and when these changes came about are germane to understanding the patterns described herein.

For example, dogsleds, and the use of dogs for carrying packs, were once widely used throughout the study area. Dogs were culturally transformative, as was their loss through the last half of the 20th century as snowmachines became widespread. Prior to European contact, dogs were principally pack animals, used for hunting and to carry or pull small loads. Dogsleds, however, had not been commonplace.⁹³ Yet by the 19th century, dogsleds were commonplace. Indeed, people throughout the region largely depended upon dog teams for much of their long-distance terrestrial travel, trade, and resource procurement in the winter months.⁹⁴ As Agnes Cusma suggested, “everybody used [dogs,] in wintertime we used dog teams... dogs, that's all we had” (AC). The families of Nondalton commonly kept teams of seven to nine dogs per household in the late-19th and early 20th centuries.⁹⁵

Sources note that during the 19th century, technology such as firearms, nets, and the use of dogsleds made it possible to fulfill demands introduced by the fur trade, making hunting, fishing, and travel more efficient and less communal in nature.⁹⁶ Dogs allowed the people of the region not only tremendous mobility, but also freedom. With the help of dogs, even a single, small person could carry large quantities of gear, meat, goods, or other materials over vast distances, quickly and safely. Mary Hobson recounts how she sometimes traveled solo with her dogsled team during the winter:

“I stopped, tied up my dogs, my sleigh. My dogs, I tie them up: snowing too. I cook a little bit [on] my small fire. Sleigh is right there. I put little boughs over there, right close to the sleigh. I put my bed. Canvas I put over. I lay down, and I went to sleep. I wake up, there was snow. Lots of snow. This much. Build a fire, cook a little meat. No coffee that time (laughs). We cook meat, and we eat, I hitch up the dogs, I started and there was no trail. ... When it was dark, I come home” (MH 1998).

People often comment on their connection to dogs: how, if they took good care of the dogs, the dogs would take good care of them. This is echoed in *Łik'aha Qighishin Quldini Qa* (Well Trained Dogs), a narrative by Andrew Balluta, in which he praises his dog teams for their strength in carrying people and cargo over long distances through the fall and winter months:

“When it first gets cold for them, then we would drive sleds with them. At long distances they do not tire rapidly, and they do this during the fall time. If it is too long distance for them, and with good foods for the dogs, they get strong quite quickly and they become tough.”⁹⁷

People recall having to find good lead dogs for travel through some of the lesser-known and less visible trails in the study area, as the dogs were actively involved in helping identify old trail routes or plausible new ones. Dogs not only pulled sleds in winter, but were sometimes outfitted with traditional packs so they could help carry meat or camping gear in the summers when sledding wasn't possible. In the 20th century, these packs were commonly fashioned from burlap or gunny sacks.

Within memory of many Nondalton residents, dogs were used for both transportation and hunting. Today, however, dogs have been largely replaced by snowmachines (which arrived shortly after World War II) and ATVs (which first arrived in the 1970s, but have rapidly improved in reliability, safety, and range). As Clarence Delkettie recalls,

“When I was a kid... we had dogs and stuff. But after four-wheelers and ... snowmachines ... we kind of got rid of them. I kind of miss it ... our dogs, they were big dogs. They were like part wolf My dad used to take them out moose hunting. He took like two or three of them out and they would track the moose down and circle it like that until he snowshoed up to it and shot it” (CD).

Though the technologies were in flux, dogs persisted through the 1970s and 1980s, often running alongside snowmachines and providing backup if the snowmachines—still unreliable in those days—happened to break down.⁹⁸

As the connection with dog teams was lost, winter travel became faster. People are able to reach remote locations much faster, and temporary winter camps are not needed as stopovers as frequently. Extremely remote areas within the inland Dena'ina territory became increasingly accessible. People mentioned increased ease of access when speaking of places far from the villages, river, and main trails: “[L]ong time ago when there were dog teams, they would never go down in that area. Unless it was a good day—real clear you know!” (GA). Many pathways now used as winter trails for snowmachines follow trails once traversed by dogs. In many places, trails have been modified or modestly rerouted, reflecting the different configurations and speeds of modern snowmachines, which require solid ice and snow cover. Travel by snowmachine is limited if Lake Clark fails to freeze over during more temperate winters, as was the case in 2004–2005, and again during years in which this study was undertaken.⁹⁹

The shift from dogsled to motorized vehicles changed the configuration of trails in other ways as well. For example, dog teams were usually run between timbered areas, which provide camp sites and are easily navigated at lower speeds. Modern snowmachines, on the other hand, tend to operate in open country: “[A] long time ago, they used to hit every timber they could. Nowadays we try to stay away from the timber because they have no openings you know; easier going... The dog team... they always wanted to be around trees” (GA). Without dog teams, people also require far fewer fish. Salmon harvests have declined, especially for dog salmon and other low priority fish, while dog “bone drying racks” sit idle on the margins of Fish Camp and other fish processing stations. Summing up the effects, Clarence Delkettie says, “[Travel takes] less time and we put up less fish in the summer time because it takes a lot of dog food.” Yet many simultaneously bemoan the loss of dogs: they were reliable, they didn't “break down... and you didn't have to order spare parts from someplace outside” (CT). Some interviewees speak of the loss of dogs and the arrival of snowmachines as a turning point in their integration into, and dependence upon, the cash economy. Snowmachines require a large initial purchase, plus a steady supply of fuel, spare parts, and repairs, all requiring cash purchases of materials from the outside.¹⁰⁰ Many note that their families had connections and skills relating to dogs that are now rapidly disappearing. Finally, some suggest the lack of responsibility for a dog team has deprived tribal youth of an important element of traditional education and experience. A few interviewees call for the organized return of dog teams to address such losses.

The increased use of motorized vehicles has abbreviated the length of time required to travel across the landscape. As a result, many intermediate camps are not visited with frequency. The importance of camps has changed somewhat in response—with big camps (those at especially important resource harvest sites, or those at a great distance from Nondalton) being maintained, and smaller and less consequential camps falling out of regular use. Yet even long-abandoned camps are often necessary for survival, especially in times of emergency. As is discussed more in subsequent sections, people maintain longstanding camps along the trails even where they might not be used each year—keeping them provisioned with dry wood, while clearing low branches and retaining overhanging branches on camp-margin trees for shelter.

During the 20th century, money earned from seasonal employment and new cash enterprises was often invested in rapidly emerging technologies such as boat motors, airplanes, snowmachines, and ATV's, which quickly reduced the need for large dog teams. Airplanes were abundant in the region shortly after World War II, and many families gained access to this form of transportation in the 1960s and 1970s, using airplanes to assist with hunting and travel. Snowmachines and ATVs allowed for much expanded mobility for those pursuing subsistence on the landscape near village sites—again, with snowmachines emerging by the 1950s, and ATVs by the 1970s–80s. Often, cash earnings from fishing went to invest in these new technologies that supported subsistence tasks: “Most cash for capital purchases [during the mid-1980s], such as snowmachines, skiffs, outboard motors, and all-terrain vehicles, was obtained from money earned in fishing.”¹⁰¹

Ironically, even today, many Nondalton residents who pursue employment outside of the village do so in order to invest in technology and equipment required to return to the landscape to pursue the traditional seasonal round:

“It was not that they stopped hunting, trapping, fishing and gathering, but they did so now by means of new technology that enabled them to go further in shorter periods of time, enabling them to accommodate the schedules and demands of [a] more permanent community residence.”¹⁰²

In this way, the inland Dena’ina are using all possible means to integrate the requirements of a cash economy with available technologies, in part to maintain traditional subsistence lifestyles—which as we outline below, are critical to their survival.

The Modern Village of Nuvendaltun (Nondalton)

On the shore of Sixmile Lake, 15 miles north of Iliamna and 200 miles southwest of Anchorage, sits the village of Nondalton, approximately five miles south of Old Nondalton. A “rural” community, the village boundaries encompass 8.4 square miles of land and 0.4 square miles of water (Nondalton Tribal Council 2006), and are in the Lake and Peninsula Borough. Several entities share management of the village. Though the Nondalton Village Council is the governing body of the federally recognized tribe, the municipality itself is administered by the City of Nondalton. Owning and managing 126,410 acres of land in the region, the Kijik Native Corporation is the primary landowning entity representing the tribe, and manages economic development initiatives in this capacity. Nondalton is also a member of the regional Bristol Bay Native Corporation (BBNC), and its non-profit wing, the Bristol Bay Native Association (BBNA).

For inland Dena’ina families relocating from many villages throughout the region in the 19th and 20th centuries, Nondalton became the largest single community within the inland Dena’ina world. The rise of Nondalton occurred alongside an increasingly sedentary lifestyle among the inland Dena’ina, as people moved from highly mobile subsistence lifeways to more village-based lifeways, with travel to remote subsistence use areas facilitated by a growing range of motorized vehicles. This regrouping within Nondalton occurred almost continuously for generations, and arguably continued into the late 20th century. As Ellana and Balluta suggest,

“In fact, it was [in] the early 1960s that the few Nondalton Dena’ina, who were still moving across the land in accordance with the rhythms of the seasons and the availability of fish, game, and plant resources, became, in many cases reluctantly, more committed to year-round village life.”¹⁰³

According to the US Census Bureau report in 2013, Nondalton had a year-round population of 166 people, though the actual population increases significantly during peak salmon fishing season and other such times. Population fluctuates as the result of subsistence demands, seasonal employment opportunities, and other factors, reaching an apex between July and November.¹⁰⁴ In the 2000 census, nearly 90% of Nondalton’s population identified themselves as American Indian

or Alaska Native—principally Dena’ina. However, as in the recent census, tribal members are increasingly identifying as “mixed race,” so that in 2010, 63.4% of the population identified themselves as American Indian and Alaska Native, and 20.7% identified with two or more races, reflecting intermarriage with a number of newcomers. Only 15.9% of the Nondalton community identified principally as White in 2010, and 0.5% as Native Hawaiian or Other Pacific Islander.

The Nondalton community is effectively disconnected by road from the rest of Alaska. It can be accessed only by air and water. In the winter, conditions do allow for a road between Nondalton and Newhalen, half of which is paved.¹⁰⁵ But much transportation involves travel over the landscape, on trails rather than developed roads, requiring small motorized vehicles: “Air taxi, skiff, snowmachine and four-wheelers are the main modes of transport for residents and visitors.”¹⁰⁶ A small number of local services provide air travel, utilizing a state-owned, gravel runway. As for shipped commercial goods, these are sent to Iliamna and then “taken by a cat-trail to [the east bank] Fish Camp, located across from Nondalton on the east side of the Sixmile Lake.”¹⁰⁷ They are ferried from there by skiff or barge to the west side of the lake as there are no docking facilities in Nondalton. Two small lodges accommodate visitors during summer months, Newhalen Lodge and Valhalla Lodge.¹⁰⁸

A consequence of Nondalton’s remote location is the limited number of job opportunities for those living in the village. Some community members find seasonal employment during the summer participating in the commercial fishing industry, firefighting for agencies such as the Bureau of Land Management, working on local construction crews, and to a lesser extent, mining crews, or serving as sport hunting and fishing guides. Positions with the school, city, tribe, and U.S. Postal Service provide a small number of year-round institutional positions. Yet this is only a modest improvement over conditions reported a generation ago: “Only four jobs in Nondalton have been relatively long-term... These included the postmaster, school janitor, water system maintenance, and health aide positions.”¹⁰⁹ From year to year, participation in a cash economy is intermittent for many families, and income is variable. Which means, simply put: *life is not possible without an active and robust subsistence economy*. The fact that a robust subsistence economy has been difficult to maintain in modern times without access to the cash economy, in light of the high cost of outside goods and fuel, is a fact stubborn and highly significant. As is true regionally, income generated by paid positions has often been reinvested in equipment needed to support subsistence activities:

“It appears that in Nondalton...people have found that the best and most efficient use of their limited monetary income has been to invest a substantial portion of it into hunting and fishing equipment and operating costs.”¹¹⁰

This reliance on subsistence in combination with a cash economy creates what many researchers refer to as a “mixed, subsistence-based economy” in Nondalton.¹¹¹

Subsistence in the form of fishing—both salmon and freshwater—alongside big-game hunting, trapping, and gathering of plants and wood remains the mainstay of village life and sustenance for the Nondalton Dena’ina community.¹¹² While exact figures vary from year to year, recent statistics are especially illuminating: recent studies suggest that salmon comprises nearly 65% of Nondalton villagers’ subsistence diets, while another 15% is comprised of freshwater fish.¹¹³ According to an ADFG harvest survey conducted in 2005, approximately 92% of Nondalton households participated in salmon subsistence (all species) and 48% participated in subsistence fishing for other species.¹¹⁴ This subsistence harvest involves the full community, through the widespread sharing of fish. The remaining portion of the subsistence diet comes largely from big-game land animals (caribou and moose, but also species like Dall sheep, and black and brown bear) with the hunting and trapping of small animals (birds, rabbit, porcupine) and plant consumption (mainly berries) contributing important supplementary foods. A small number of Nondalton residents also take part in the subsistence harvest of



Traditionally seen as sacred, *K'enqena* (*dentalia*) is used on regalia for traditional ceremonies and potlatches.

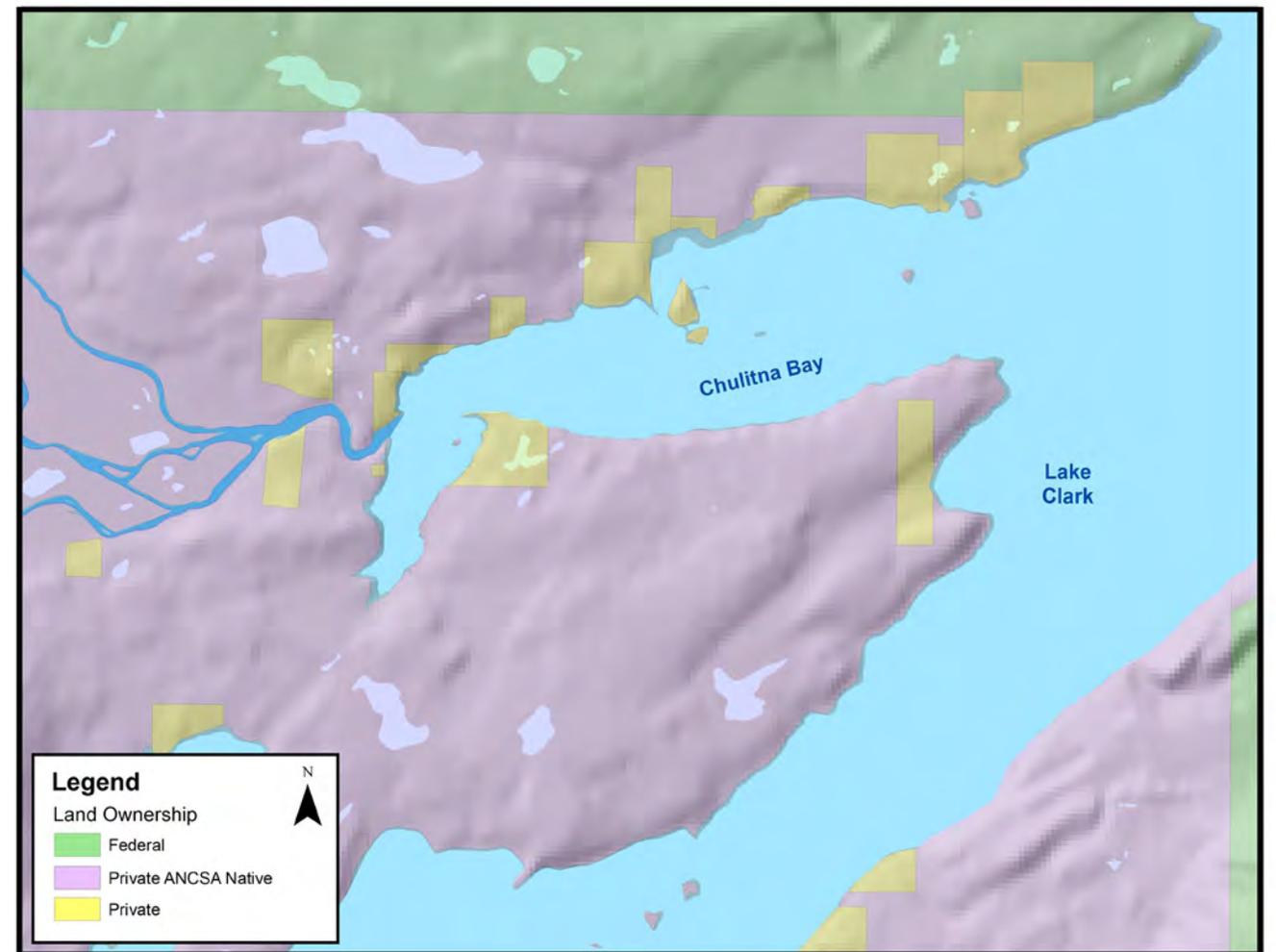
NPS PHOTO/ F. HIRSCHMANN.

marine resources, such as marine fish and shellfish, when visiting family and friends in places such as Tyonek or Bristol Bay. Freshwater clams are also reported in some of the lakes of the study area. These may have been consumed in times past, though oral tradition about the practice is scant. A freshwater species of *dentalia* (*k'inq'ena*), a traditional adornment and money shell, is also found in some of the small lakes within the study area and according to oral history, has been gathered there historically.¹¹⁵

Big game alone can supply a staple dietary source, enough to feed families through the year.¹¹⁶ So when the salmon harvest is poor, use of big game increases for a time. If big game hunting is poor, small game and plant use intensify. In this way, small perturbations in the natural availability of subsistence resources are offset by the dynamism and flexibility of inland Dena'ina resource harvest practices—a tradition dating from long before European contact.¹¹⁷

In 1906, the Alaska Native Allotment Act came into effect, permitting individual Alaska Natives to acquire up to 160 acres of land. This land could not and cannot be sold, leased or otherwise conveyed without the involvement and approval of the Bureau of Indian Affairs. Many of these allotments are situated throughout the study area. In the past, some were inhabited much of the year, though many are vacant today due to inland Dena'ina relocation to Nondalton and other villages.

To this day, some tribal members remain on allotments within the study area, such as Butch and Pauline Hobson, who live much of the year on an allotment near Chulitna Bay. For Nondalton families who still own allotments, these sites serve as important footholds, often used seasonally as camps when hunting, fishing, or carrying out other activities within their homeland. These allotments are found throughout the study area, including many along Chulitna River, Chulitna Bay, and beyond.



MAP 5

Detail map of Native allotments along Chulitna Bay.

COURTESY LAKE CLARK NATIONAL PARK & PRESERVE.

In the 1950s, concern was raised when nonresidents began purchasing land around the village. As a result, in 1953 Nondalton applied for a townsite partition at its current location. In 1963, residents elected representatives to form the Nondalton Tribal Council to represent tribal interests. Shortly thereafter, in 1971, the Alaska Native Claims Settlement Act (ANCSA) was passed. This settlement established twelve (now thirteen) Alaska Native regional corporations and over 200 local village corporations to which land titles were transferred. The regional Bristol Bay Native Association currently includes Nondalton and 30 additional communities across 40 million acres of southwest Alaska. Nondalton's local Kijik Corporation (previously known as the Nondalton Native Corporation) was also formed under the auspices of ANCSA. Today, Kijik Corporation has over 410 shareholders, with approximately half of those living in Nondalton and the other half in Anchorage, many of whom work seasonally in the city and return to Nondalton to pursue traditional subsistence activities. It was around the time of ANCSA's passage, after 1971, that most Nondalton families designated their allotment lands in and around the Chulitna-Sixmile study area.

Nondalton is somewhat unique in being nearly surrounded by NPS lands. In 1978, Lake Clark was formally declared a National Monument by President Jimmy Carter under the Antiquities Act. Only two years later, in 1980, congress passed the Alaska National Interest Lands Conservation Act (ANILCA), setting aside 43,585,000 acres of new national park lands

in Alaska, expanding NPS holdings around Lake Clark and converting the Lake Clark National Monument to the Lake Clark National Park and Preserve. Port Alsworth became the site of the new National Park Service headquarters, which also has staff in the Alaska Region Office in Anchorage. While subsistence activities continue to be permitted within park and preserve boundaries, access is subject to regulation by the Park Service. Boundaries and access are complex. Not all lands within LACL's external boundary are owned by the National Park Service. The southwest section of the preserve overlaps Alaska Native corporation lands, principally those owned by Kijik Corporation, including Kijik Subsistence Land Settlement trust lands, as well as many Native allotments owned by Nondalton residents and their families. As a result, land ownership patterns in the vicinity of Nondalton, and throughout the study area, create unique challenges in the management of lands and resources of interest to—and necessary for the survival of—Nondalton residents.

Other Traditionally Associated Villages

While Nondalton residents are the principal focus of this book, Nondalton is linked to a constellation of other villages with inland Dena'ina residents, all with historical and cultural ties to the land and to their common past. Most significant are the communities of Lime Village and Stony River to the north, and Iliamna, Newhalen and Pedro Bay to the south. Tyonek, a coastal village on Cook Inlet, was also tied to Nondalton and these other villages through what was called the "Tyonek people's trail." All of these communities and their members share a history with Nondalton and other inland Dena'ina people, a history of both displacement and resiliency that relocated people who were once highly mobile to a small number of permanent, year-round villages. Residents of Nondalton remain actively connected to each of these communities through language, marriage, and shared cultural traditions maintained through enduring social networks and travel routes.¹¹⁸ Each of the inland Dena'ina communities is briefly summarized here, providing context for the material that follows.

Hek'dichen Hdakaq': Lime Village

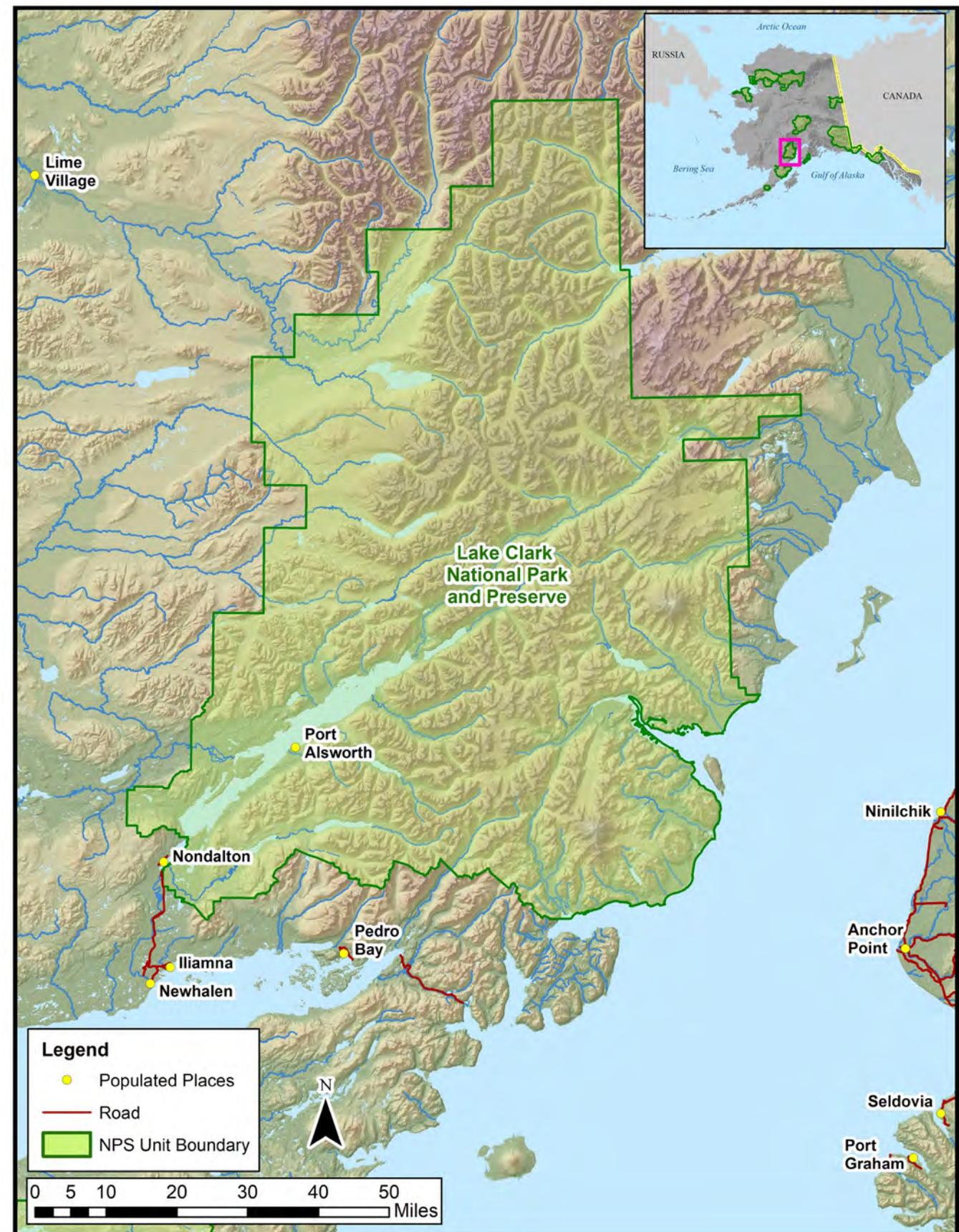
Approximately 100 miles north of Nondalton, near the convergence of *Hek'dichen Vetnu* (Hungry Creek or 'abundance stream') and the Stony River, below the Lime Hills in the north and west, is Lime Village—*Hek'dichen Hdakaq'* (possibly 'abundance mouth,' a reference to the richness of the resources at this river confluence). Once a largely seasonal settlement and fish camp along the Stony River, the village increasingly became a year-round settlement for several inland Dena'ina families from the region. Many families moved away over the last century (many to Nondalton), leaving the community relatively small. In 1939, Lime Village was referred to as "Hungry Village" in a US Census. Today, covering approximately 82.5 square miles, it is considered a census-designated place (CDP) in the Bethel Census Area and a Resident Zone Community of the Lake Clark National Park and Preserve.¹¹⁹ The federally recognized tribe is represented by the Lime Village Council. Lime Village is also the easternmost village of the Calista Corporation—a Native corporation representing villages in southwest Alaska.

In 2000, 46 people resided year-round in Lime Village. The village population has continued to decrease since the closure of the state school in 2007. And by 2010, the population was reported to be only 29 permanent residents, occupying 11 households.¹²⁰ Also experiencing a mixed economy, heavily dependent on subsistence resources, only certain residents work regularly in the cash economy—many of those seasonally. The closure of the school not only eliminated employment opportunities associated with teaching and building maintenance, but also led to discontinued free mail service and reduced air-taxi traffic. The tribal government now charters a plane to deliver mail once each month. In spite of technological developments in communication and transportation in recent years, Lime Village remains a remote rural community that makes Nondalton feel "urban" by comparison.

OPPOSITE PAGE: MAP 6

With current boundaries established in 1980, Lake Clark National Park & Preserve incorporates many lands surrounding Nondalton, still used for subsistence and other purposes.

MAP COURTESY LAKE CLARK NATIONAL PARK & PRESERVE.



Many Nondalton families maintain strong ties with family and friends in Lime Village. For some Nondalton residents, having a base of operations and traditional resource access in that area provides a key “fall back” when caribou and other game are temporarily scarce close to home. As George Alexie notes of recent hunting trips by Nondalton residents to Lime Village:

“We went up there to hunt caribou when there was caribou to hunt. A long ways up there to get meat! But they used to do it a long time ago... I think they’d use it to get away from their wives, go hunting!” (GA).

People often travel from Nondalton to Lime Village in order to visit family and friends, though this practice is said to be waning somewhat as generations advance. The Lime Village Trail is widely described as one of the most important trails in the entire inland Dena’ina world, both historically and today.¹²¹

K’qizaghtetnu: Stony River

K’qizaghtetnu (Stony River Village or ‘distant stream’) is located on an island near the northern bank of the Kuskokwim River, north of its convergence with Stony River. Approximately 140 miles north of Nondalton, it has previously been known as Moose Village or Moose Creek. Also a seasonal settlement and a base of hunting and fishing operations historically, Stony River became a year-round residence for the *Htsaynenht’ana* inland Dena’ina of the Upper Stony River and Telaquana Lake, as well as those who hunted in the Mulchatna area. Historically, Stony River was a sort of “frontier settlement” at the contact point between Yu’pik people and three distinct Athabaskan peoples: Deg Hit’an, Dena’ina, and Upper Kuskokwim. In the 1930s, Stony River also served as a station to supply mining operations to the north, and gained a post office in 1935, and eventually the Gusty Michael School, serving the 75 children and adults who lived in Stony River. In 2010 the total population was 54 people.¹²² Stony River remains actively connected to Dena’ina residents in Nondalton and Pedro Bay through social connections and travel associated with hunting in the Mulchatna and Telaquana areas.

Nila Vena: Iliamna

Situated approximately 15 miles south of Nondalton is the village of Iliamna. Originally known in Dena’ina as *Nila Vena* (‘islands lake’) and now referred to as Old Iliamna, Iliamna was a village site at the mouth of the Iliamna River at Pile Bay. Long a gathering place of Native communities from the region, the village has also become an important crossroads of Native and non-Native interests since the nineteenth and early twentieth centuries. Because of this role, the community had a post office by 1901—much earlier than many Dena’ina communities.

In 1935, the village of Iliamna moved approximately 65 miles to the northwest shore of Lake Iliamna, just north of the mouth of the Newhalen River. As with the moves made by Nondalton residents, this shift had many influences. Residents sought to move out of the old village after the measles and influenza epidemics in 1900 and 1918. This move provided them access to a key salmon fishing station. Yet over time, Iliamna remained an important location for regional trade and transportation. For example, the community gained a school and became host to a military airstrip between 1941 and 1943, adding to the village’s transportation infrastructure.¹²³ Today, Iliamna is central to the Lake Iliamna regional transportation network, accessible by air (commercial and private air services) and water (with a breakwater, boat harbor, and dock). An 8-mile gravel road connects the community to Newhalen. Iliamna also shares with Newhalen an airport, school, and post office. The Iliamna population in 2010 consisted of 109 people.¹²⁴

Nughil Hdakaq’: Newhalen

Five miles south of Iliamna is the village of Newhalen—*Nughil Hdakaq’*, a Dena’ina name meaning ‘current flows down stream mouth’ or ‘Noghelingamiut’, a Yup’ik name meaning ‘people of *Nughil Hdakaq’*. “This village has moved over the course of time, but is currently located on the northern shore of Iliamna Lake at the mouth of the Newhalen River. It sits at a traditional interface between the Dena’ina and Yup’ik worlds. The village is said to have been historically Dena’ina, though it experienced an influx of Yup’ik residents beginning around 1900. Newhalen was incorporated as a city in 1971. In 2000, there were 160 people living in Newhalen, but by the 2010 census, the population had decreased by roughly 14%, to 137 people.¹²⁵ As with many communities in the region, Newhalen remains connected with inland Dena’ina communities through strong social networks and mutual interests in regional subsistence and economic matters.

Hduvunu Hkaytaghi’u: Pedro Bay

Pedro Bay is located on the northwest edge of Iliamna Lake, approximately 28 miles southwest of Nondalton. An ancient settlement, the area has archaeological evidence suggesting habitation no less than 4,500 years in duration,¹²⁶ and is known in the Dena’ina language as *Hduvuna Hkaytaghi’u*, meaning ‘lips bay’. During the time of epidemics and village reconsolidation, many families left for Old Iliamna and Nondalton. Yet one resident who remained was a man named Petroski Riktorov, whom the residents knew as “Old Petro.” The current village is said to be named for him.¹²⁷ The village sits at the western end of the Iliamna portage that connects Iliamna Bay to the Cook Inlet coast. This portage was used historically as a thoroughfare for people and trade goods moving between the Cook Inlet and Lake Iliamna regions. Today, it has become a road and continues to be used to transport people and supplies, though the village is more commonly accessed by air or water. Pedro Bay has long been a Dena’ina community and remains largely Dena’ina to this day. In 2000, there were 50 people living in Pedro Bay.¹²⁸



Women splitting fish at the mouth of the Newhalen River, 1921 PHOTOGRAPH COURTESY OF ROBERT & APRIL VREELAND, H-214.

Travel, Trails, & Traces on the Land: Fundamentals of the Inland Dena'ina Cultural Landscape

Even in areas not settled permanently or year-round, Dena'ina traditional practices and values left discernible physical traces on the landscape. Of course, many of these physical traces are subtle, as observers note. Interviewees attribute this to a “no trace” ethic rooted in core Dena'ina cultural values. While some modification of the landscape is necessary, excessive modification is said to be disrespectful and traditionally discouraged. Randy Kakaruk explains the elusive footprint of Dena'ina people:

“It’s the respect for the land that’s why... You want to leave the land the way it was when you got there, when you first got there. And that was a rule that was explained to us. Even my mom used to tell us that as kids: when you go somewhere you want to leave it the way it was when you first got there” (RK).

Thus, many types of traditional resource use remain largely invisible to the casual observer: “You can’t tell if I was picking berries. You can’t tell if I was fishing” (FS).

Still, Dena'ina land and resource use are, by various measures, evidenced widely within the study area, and in many cases reveal past, and often ongoing, human activity—even in the absence of other forms of evidence. As the handiwork of the ancestors, created long ago for the wellbeing of future generations, these traces are appreciated by modern Dena'ina as culturally significant landmarks, even as “sacred” in the view of some tribal members. Understanding the appearance, origin, and enduring cultural meaning of these features is essential to comprehending the Dena'ina landscape.

Camps are one type of landmark common throughout the study area—most situated along waterways and linked by a network of trails. For example, large camps were situated on many of the smaller lakes within the study area, with numerous historic camps reported to have been sat on Nicovena and Long Lakes. These have been bases of operations for trapping, hunting, berry picking, and many other activities. Interviewees report that fish are traditionally caught in large numbers from the Long Lake camps: “people would fish there for their dogs and for food...along the whole river, but there at Long Lake there was a spring camp to do that” (BH). Among evidence of these camps are depressions from possible pit houses or smokehouses reported on the east side of the lake, associated with the fishing excursions. A similar pattern is described on the Pickerel Lakes. As Rick Delkettie recalls,

“You see this trail here [from Sixmile Lake to the Pickerel Lakes] is used [a] couple different seasons. It’s not only a winter trail it’s also a spring/fall trail. My grandpa used to... have a camp in between Upper and Lower Pickerel Lake...that’s a Native allotment too, if you check the map... [In every season] he used to travel through there... He used to trap up here... He made fish trap out of all the materials, right on location” (RD).

People trapped fish from these Pickerel Lake camps, including some of the lesser used species. Even smaller lakes, like “Johnny’s Lake,” served as campsites along trail routes, while also usable for hunting, trapping, berry picking, and other traditional activities.

Many older camps are found along the Chulitna River as well, especially where traditional trails transect the river. One camp, for example, sits along the river a short distance below the crossing on the Lime Village trail:



“ [W]e camped—where did we camp? Someplace right around in this area on the river. Well the trail crosses above where we camped... the blaze marks were still there where it crossed.... Up in here, there’s another little lake up in this area [and] it goes across that lake. There’s some traps hanging up there and it cuts down and hits the lake. And then it goes across there, connects to those trails...; there’s some old traps, couple old traps. That’s where we camped with Butch and Thomas [as part of the current study]. [When leaving that camp in summer] we went from that point right there, all the way down to the flats. Would have been another really, really slow ride from there to the mouth of the river because it slows down from there” (GA).

These are examples only. Additional camps will be discussed in later sections of the study. Importantly, in more recent generations the endurance of these camps have contributed to creations of Native allotments on the shores of many smaller lakes, and in some riparian sites:

“ You see all these Native allotments... How did they claim that? How did they know they wanted it there? They had to get out there somehow... there’s a reason why some of these Native allotments and camps...are located out there where they are. [It] is because it’s a primary hunting spot or camping spot or [other prime area]” (RK).

Today, as land tenure has been formalized and ossified by Western legal traditions, these allotments remain as important campsites—by no means the only places used by tribal members, but as important footholds within the traditional inland Dena’ina territory.

These camps, and their importance as a base of operations for hunting, fishing, plant gathering, and many other traditional activities, will be discussed throughout this book. The signature elements of a camp on the landscape—clearings, modified trees, and other physical traces that endure when people are not present: these are clues to past human activity and deserve greater attention as evidence of cultural landscapes. They are described in more detail in the pages that follow. So too, we turn attention to other physical traces of human activity, such as trails, that remain not only as functional landscapes, but as enduring traces of past human activity on the land.

The Cultural Uses & Meanings of Trails

Among the visible traces of traditional Dena’ina activity within the study area, none is as visible or consequential as the vast network of trails. Trails are said to be “very important” to many dimensions of traditional life, “one of the most important things” in the cultural landscape today. Dena’ina territory is a lattice work of extensive trail systems worn by the footsteps of generations on the move as they tracked small and large game, followed the salmon runs, and traveled between valleys and mountains, villages and seasonal camps. Radiating out in most directions from Nondalton and villages modern and historical, the trails remain principal corridors of activity. They traverse the landscape from “sea level from valley to valley, lake to lake, trodden for thousands of years as the most convenient ways to traverse a rugged landscape.”¹²⁹ Trails not only connected villages for the movement of people and goods, but created highways over which information traveled quickly. They are strategically oriented to provide efficient and safe means of travel,¹³⁰ as well as the movement of information and goods. Oral tradition describes not only fine-grained trails linking every imaginable traditional use area within Dena’ina territory, but:

“ Today we can appreciate how wide and thorough the Dena’ina’s use of their territory is by looking at the great number of geographical features and ancient and historic village and camp sites Dena’ina elders still know by name. They know hunting camps in the high country, overnight campsites used during long journeys through mountain passes, traplines in the timbered lowland, and villages and fish camps on streams and lakes.”¹³¹

Used year-round on foot and dogsleds for generations, the trails continue to be essential to new generations of Dena'ina who travel the same paths using snowmachine and ATV. On occasion, they are still traveled on foot.¹³²

Oral tradition clearly describes major passageways—veritable highways of human movement—extending north and west of Lake Clark, linking the Lake Clark region inland to the high plateaus.¹³³ The Telaquana Trail that runs from the village of Kijik to Telaquana Lake is among the most well-known of these worn passageways, though comparable routes link much of the Lake Clark region with the Mulchatna, Nushagak, Stony and other river basins as well as the lands, resources, and villages of each.¹³⁴

The route between Nondalton and Lime Village, passing across the Chulitna River Basin, was said to be among the most important historical trails of the inland Dena'ina world. During times of resource scarcity, such as when salmon runs crashed or the caribou did not arrive, families used this trail network to access hunting and fishing areas in the Mulchatna and other river basins nearby. In those areas, they might be so fortunate as to encounter ancestors to the “Mulchatna Herd”—the famously vast herd of caribou that travels through the greater Mulchatna River Basin. These resource strategies, and the trails that made them possible, all contributed to the stability and resiliency of traditional inland Dena'ina villages. In truth, the large sedentary villages of the contact period may have been partially dependent on these practices. The trail is still used today:

“There is a trail from Nondalton over the mountain, down through here... It goes right straight back up through in this cut [between the hills] and it goes out like that and goes across that lake right there. Then it hits [Chulitna] river and goes up the river. And then it goes—take right at the base of this mountain, the trail goes like that. And right through Dutna Lake and it goes around these hills and then it hits the Chilchitna right there, and goes straight across to Dummy Creek. And it hits the ‘Chili’ [meaning Chilikadrontna River] and the Mulchatna right there. Then it goes all the way to Lime [Village]... It takes two days to get up to Lime Village—or maybe one night and then all the next day. [By snowmachine it is roughly] two days, depending on the snow conditions. One day if it’s good, two days if it’s a lot of snow” (GA).

Other major trails run long diagonal routes, across or near the southwest lobe of the preserve, for example, from the vicinity of Nondalton toward the Chulitna River and beyond. Traversed by trails, this corridor is frequently traveled by tribal members en route to the Chulitna Basin, and is hunted and trapped extensively—for marten, beaver, and other species. In spite of the technological and economic changes of recent decades, the trail networks endure. And while on the surface they appear to be solely utilitarian, in truth the cultural meaning of trails—*tanetun*—is deep and multi layered in inland Dena'ina tradition.

First, trails are on one level fundamentally important for survival; they are critical “for the food,” as some suggest (DC). They allow Dena'ina people to access lands and resources necessary for survival, providing access to what is “pretty much our grocery store. [Non-Native people have] their grocery stores and this is where we go for ours...it’s mostly from the land” (FS). Long ago, these trails allowed Dena'ina people to travel hundreds, even thousands, of miles each year to



Nondalton residents traveling over the frozen Chulitna River by ATV in wintertime. KAREN EVANOFF PHOTO.

obtain salmon, moose, caribou, and other game, harvesting berries and other plant materials along the way as part of the seasonal round.¹³⁵ As Ellana and Balluta reported, “Before the days of the *gash’t’ana* (white man), the inland [Dena’ina] traveled overland, covering miles of country on foot and dragging sleds behind them during the winter time” as part of these harvests.¹³⁶ As Agnes Cusma states: “In summertime we walk. Put our packs on our back and walk” (AC). When traveling was done on foot, harvested materials were carried home in a *hal duten*, a packboard or packstick.¹³⁷ The trails still function similarly today, allowing the people of Nondalton and other villages to access all of their substantive food resources, though snowmachines and ATVs allow much larger quantities of material to be carried with great efficiency.

Yet providing access to other communities is a function of trails just as important as providing access to food. Trails allowed people to visit relatives and friends, attend social events and celebrations, “meet the people they are going to marry,” trade, and many other activities key to Dena’ina social, economic, and ceremonial life. As Ellanna and Balluta state: “They made such journeys, in part because mobility was highly valued in inland Dena’ina society.”¹³⁸ Indeed, travel by trail is central to Dena’ina cultural practice throughout central Alaska.¹³⁹ Thus, these trails were the unifying physical structure linking villages. They have always played a key role in tribal and personal histories.

At one time, runners traveled the trails, linking communities and providing critical news, warnings, and invitations. Notifications of pending potlatches and ceremonies were carried by messengers—usually young men who were agile travelers familiar with the key trails between villages.¹⁴⁰ Whole communities would mobilize rapidly in response to these messages, arriving a few days later.¹⁴¹ Thus, the trails were foundational to the most basic structure of Dena’ina social and family life, allowing people to meet and marry those from other villages and clans.¹⁴²

Many families have travel or migration stories describing family, friends, or ancestors from villages beyond the study area traveling by trail to Nondalton. For example, Mary Hobson moved from Lime Village to Nondalton as a young mother with her husband Steve along the main trail between the two villages: “We walked. I packed a baby. Steve packed our bedding. Our dogs packed his own pack. One dog that’s all” (MH). Intervillage travel of 100 miles or more along these trails was not uncommon,¹⁴³ and much oral tradition, even the geography of sacred places, is anchored to the geography of the trail network. To this day, the mobility afforded by trails continues to be a highly significant aspect of the Dena’ina way of life, a foundation not only of seasonal subsistence, but of social, economic, and ceremonial relationships, linking friends, families, and villages by allowing transportation over long distances.

Yet beyond these roles, and especially on the more established trails, Dena’ina people widely appreciate the cultural value intrinsic to the trails. By following the trails, they perceive they’re literally following the tracks of their ancestors. These trails are an inheritance from generations past and “a footprint of what our ancestors did... a long time [ago]” (RK). Some say the trails are like an “education map” showing them where to go and what to do in their homeland, even when no elders are present to teach them, even when critical information regarding the land is, in some cases, forgotten. The trails provide direction through lands largely devoid of human settlement and hard to navigate in bad weather. They offer safety in dangerous conditions and orientation when far from home. The orientation of trails is said to manifest deep, multi-generational understandings of the opportunities, obstacles, and hazards in the landscape. Thus, many levels of teaching are inherent in the trails and perceived by modern Dena’ina travelers. Randy Kakaruk describes how he learns as he travels the landscape, along trails perceived to be the ancestors’ handiwork:

“If you look at these trails, it’s really cool how they’ve mapped it out the way they did. It was accessible. You know, to me you could look at it and know that was the safest route they were able to pick. It was actually really cool how they were able to just see the land like that... That’s what I always think about when I’m out there, is when they first made that trail...how it was when they were mapping it out. How cool

that would have been then, knowing that. It was necessary though because that’s our hunting grounds... It’s a footprint for us, man. It’s something that was left for us. It’s like it’s being passed on to us. ...[A]s long as we keep using it, we’ll never lose that” (RK).

Understood this way, trails hint at how the landscape changed over time, as shorelines eroded or prograded, and forests emerged where once there was tundra.¹⁴⁴

The physical traces of trails vary from place to place throughout inland Dena’ina territory. In a few cases, trail segments simply follow natural features; for example, waterways provide key passage in the winter. The Chulitna River and the lakes of the study area serve as key trails when frozen solid, allowing ease of movement—originally for dogsleds and now for snowmachines and less commonly ATVs. When the water is frozen solid, people often prefer waterways over upland trails: “usually people go along the beach because it’s faster” (RK).¹⁴⁵ Travel of the Chulitna River corridor requires local knowledge and skill, as there are areas that seldom freeze over completely: “you’d go up the river... [in one] area, that moss area is, even when it’s 30/40 below zero, it never freezes. It’s always open” (GA). Many trails link lakes not only because lakes are good campsites and resource harvest areas, but because of their usefulness as travel corridors in winter. For this reason, some winter trails link multiple small lakes, taking maximum advantage of flat frozen surfaces. For example, one lake north of Nondalton [*Scax’nelchen*] is traversed by a popular winter trail that links Nondalton to Chulitna River.

Winter conditions require travelers to be mindful not only of dangerous terrain covered by snow and ice, but of impending weather changes.¹⁴⁶ Thus in recent times, as lakes are not always solid in winter, travel over ice is treacherous. This has intensified Nondalton’s dependence on winter travel and winter resources on the west bank of Lake Clark and Sixmile Lake. Years ago, Ellanna and Balluta noted,

“Since transportation by boat, snowmachine, all-terrain vehicle, truck, or on foot is essential to the continued conduct of subsistence hunting, fishing, trapping, and gathering activities, the conditions of Lake Clark, Six-Mile Lake, Iliamna Lake and the many rivers and streams of the area, and trails and passes, are fundamental topics of conversation throughout the year.”¹⁴⁷

Owing to the effects of climate change, this is truer than ever.

In the summer, the geography of the travel network changes, though waterways—including the length of the Chulitna—retain their importance as travel corridors. This is especially true for boat travel. As George Alexie notes, “the main corridor in the summer is just the river, the river boat” (GA). So too, the water of the open lakes, including Sixmile Lake and Lake Clark, has long been a travel corridor for boats, though it requires great caution due to intermittent winds and large swells. The waterways have always served this purpose, formerly navigated by birch bark and skin boats to access settlement and subsistence sites in the study area, and today traversed by motorboats (Ellanna and Balluta 1992:158). Portages required special skills and teamwork: “They used to walk boats through the rapids, with a rope, tie it to the boat and walk it through” (NC).

Summertime trails sometimes follow ridges more than valleys, all else being equal, in an effort to avoid marshes and areas with poor visibility.¹⁴⁸ “Traveling all along these trails...there’s usually higher up. You want to be on a ridge—as you’re traveling you can see quite well” (RD). A few trail segments traverse open country with little or no visible trail remaining, requiring triangulation of known landmarks and other physical cues. This is especially true in remote locations and in the tundra, such as on the northern reaches of Telaquana Trail. In some of these areas, travelers follow ancient footprints worn into the lichen, or the robust trails of game that sometimes pass through.¹⁴⁹ Still, throughout much of the present study area, trails are relatively well-defined, being cleared through forests and thickets, or so well used that visible traces remain on the ground.

Trails are created with care and the seriousness befitting their importance: “When they make a trail, they chop it out, clear the brush, make it a good path” (GE). If done right, even less experienced travelers are safe when traversing the land to hunt, visit relatives, or carry out other important tasks. If trails are not visible, this causes disorientation even in experienced travelers. In storms or whiteout conditions, disorientation can be genuinely hazardous.¹⁵⁰ Trails are therefore not only the handiwork of the ancestors, but a gift from the ancestors to protect the safety and well-being of living people in myriad ways.

Trails are the focus of long-term commitment and investment by the entire community. “Once there’s a trail made, everybody uses it and takes care of it” (GA). Historically, men traveled ahead of dog teams in the winter, clearing downed trees by saw and eliminating obstructions such as low branches, in addition to compacting the snow with snowshoes. Fords over waterways were especially precarious, and their locations chosen carefully by travelers and trail-builders.¹⁵¹ In a few places, people appear to have produced bridge-like fords, or removed obstacles on steep slopes that might create hazards for travelers.¹⁵² Year after year, these efforts produced a well-defined trail network through timbered areas that was easy to locate and relatively open: “Especially up there, there’s lot of snow, you know. Some guy would walk ahead with snowshoes and blaze the trail and keep them going. Somebody will follow behind with the dogs” (GA). Men also commonly organized work parties to travel along the trails and maintain them. Men like Gust Evanoff did this regularly each year: “everybody helped each-other” (GE). This was done not only on dogsled trails, but on major pedestrian trails around the village. By the mid-20th century, heavy equipment, including tractors along with chainsaws and other power tools, assisted in maintenance of trails, especially those close to the village.¹⁵³

Still, many older trails are falling into disrepair from lack of use: “All the trails are gone, closing over because nobody’s taking care of them” (GE). Many elders note that, in some places where trails are not actively maintained, the relatively rapid growth of brush conceals trails quickly. As traditions decline, there are new obstacles to travel:

“I think all them old trails are getting [overgrown] too. I mean, I know the younger generation... they don’t even break off the branches, they just duck down and keep going. Me, I stop and try to kind of fix it... Because if you don’t do that, those trees start getting bigger and bigger every year and then pretty soon it’ll just block the whole trail and you ain’t going to be able to use it no more... you have a little brush that’s not little brush, like three or four inch [thick] like a willow; that size on the trail. You’re going twenty or thirty miles an hour and your ski gets on one side of that, what’s going to happen to you?” (CD).

Younger travelers also comment on these trends. One states, “I know they still use it, it’s just that brush around here grows so fast that it grew over. I mean, it’s not that no one uses it, it’s just the brush around here now, you cut it and the next, the

following year it’s back already.” Yet the trails are still used, he explains, “I mean I was still able to see the outline of it. And that’s just because how worn it was; how well-used it was” (RK).

The practice of trail maintenance continues today despite challenges. This is especially true along major trail corridors traversed with snowmachine and ATV. The routes leading to and from the Chulitna River area are high priority, being cleared but also marked as needed with blazes on trees. George Alexie comments on one such route: “Through this cut right here, it’s all blazed out. Blaze marks all the [way] and you could see them. And everybody maintains that trail pretty good. [If] there’s a tree fall in the road, I cut it up and move it off to the side” (GA).

Similarly, Clarence Delkettie describes actively maintaining trails in recent times as he travels these routes by snowmachine:

“Last year, I cut the trail all [around the village]. I brushed [it] out—because all the trees were leaning into the trail right up to it and it was growing in and there was tall branches. Guess what happens to a trail in the wintertime when it’s loaded up with wet snow and ice? Yeah, it leans right into the trail and you couldn’t even go without snow falling down your neck or like blocking the trail, it leans all the way over, all the brush. So I...cut most of the brush out along there; and just brushed it out. And I just did it by myself... And so now when you go up there now in this winter when I went up there, there was no branches or nothing hanging in the middle” (CD).

The traditional practice of community trail maintenance and trail “work parties” lives on. It is especially practiced near the village and Fish Camp, where it is relatively easy to assemble a work party and mobilize tools and equipment. These work groups attempt to keep key trails close to the village open: “yeah we try to! Everybody pitches in. I mean [Fawn Silas] and I did that Fish Camp trail that one summer. But now it looks like (laughs) we didn’t do a thing it, it grows over so fast! ...the only way to stay ahead is if we keep doing it” (RK).

Beyond the major trail routes that link river basins and village complexes, is a network of secondary and smaller trails linking key resource and settlement sites throughout the study area. For example, interviewees discuss extensive trail networks leading to and around Groundhog Mountain. Clarence Delkettie describes modern ATV and snowmachine use of former dogsled trails through this area for subsistence hunting. Large loops are common, allowing men to look for caribou and other game within large traditional hunting areas nearby:

“Sometimes we make a loop and go all the way around [the south side of Groundhog Mountain] ...Or we go like clear up by these lakes here and we’d go this way beyond Groundhog and then go back...to Nondalton. ...Because you make a circle...you cruise up this way, get up on the mountain right around here and then go all the way around and you come back up through the mountain and back down between the mountains right here. It’s like a big circle sort of like” (CD).

While level areas are preferred, people often take steep trails such as onto Groundhog Mountain or the ridges encountered along what is called “the volcano route.” Traveling these areas can be risky, and requires special preparation and skill even on modern machines:

“The volcano route too, everyone goes that route... I don’t like to go the volcano route because man, that’s a steep place. They’re going up like that steep of a mountain with a four-wheeler. You got to stand up and lean forward and you’re like that far from the edge of the bluff almost. You can’t be faint of heart going on that trail. And coming down off of there with a full load of caribou on your four-wheeler, you got to know what you’re doing. Actually, anywhere you got to know what you’re doing! ...[E]verybody usually balances out their load pretty good from the back of the four-wheeler. You can’t have too forward or too much backward on the back rack. You gotta have everything balanced evenly. [And] pretty level all around all sides, the back and the rear. If you don’t do it right there too you could flip over or something will happen” (CD).

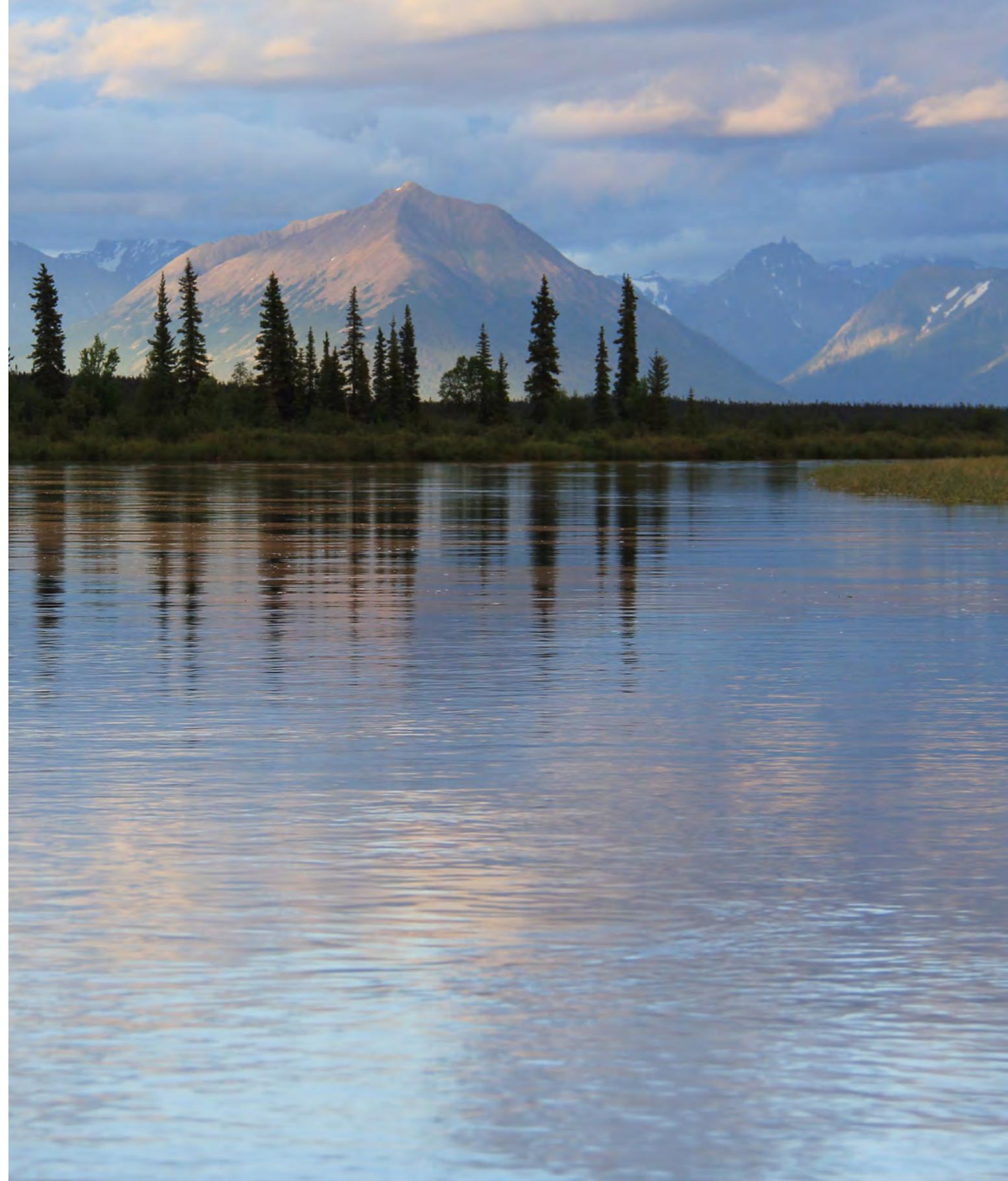
Some spots along trail routes are major intersections due to their positioning in the broader terrain. Horseshoe Bend has been mentioned as one major example along the trail network, where multiple trails converge. On the other hand, some trails are relatively inconsequential, used as “backup” routes—for example, when principal routes are obscured by fog, exceedingly windy, or posing other hazards. Rick Delkettie, for example, describes going bird hunting in the study area and being trapped by bad weather when trying to cross Groundhog Mountain: “They would be obscured. ‘Aw man, can’t go back that way.’ So all the sudden we need to leave otherwise you’re just eating birds (laughs). Head back and go south and then come back out on the Chulitna, come back up the river” (RD).

Aside from having practical value as functioning transport routes, trail networks are linked to key moments in Dena’ina history and valued for this important role. During conflicts with the Aleut and other Native communities of Alaska, the trail networks served as pathways for warriors heading in both directions. And runners traveled these trails to raise war parties for inter-village defense. In this respect, the trail networks helped to ensure Dena’ina persistence in ways not often mentioned.¹⁵⁴ Russians and other traders often rediscovered preexisting Dena’ina trails, using these as main pathways to establish trade and missionary activities in interior areas in the region.¹⁵⁵ With the arrival of Europeans came the establishment of commercial trading posts, which also became travel destinations, increasing traffic proportionately along trails leading to those distant trading sites.¹⁵⁶ Annie Delkettie, for example, described how her family traveled to a trading post where they traded fish for money needed to purchase supplies for the winter. These supplies were then transported back to a village site.¹⁵⁷

Specialized runners still used these trails at the turn of the century, when churches and formal schools were established in Nondalton. Hannah Breece, teacher at Nondalton in 1910 and 1911, describes the journey of a messenger and three children from the Stony River area, sent to attend class at Old Nondalton:

OPPOSITE PAGE:
Calm waters of the Chulitna River

DOUGLAS DEUR PHOTO



Culturally Modified Trees Within the Study Area

// During the past winter Zackar [Evanoff, the Nondalton chief] had sent word to those at Stony River that a teacher would be coming to the Nondalton camp. The Stony River Tribe dispatched an old man to Nondalton to report back what he thought of the school. With him they sent a young boy to see what the school could do for a child, and a large boy and girl to see what it could do for older children. ...The hardships of that little delegation's journey were almost inconceivable. They had crossed large, swift rivers, deep canyons, mountain snows and seeping tundras. They had started on their way the first of April, using a dogsled until the thaw. Then they had 'mushed' across country, as hiking with the aid of a sled was called, until they were brought to a halt by a river or lake. To cross it they would build a log raft. They had no baggage except for a few axes, guns and ammunition and carried no food. They lived on the game they shot. The last part of their journey was by water for many miles. They made a boat frame, shot moose, covered the frame with the hides, using sinews to sew the skins so that the craft was perfectly watertight.¹⁵⁸

Today, changes in regional and global climate are said to increase the use of summer trails, while reducing and/or complicating the use of some winter trails. For example, when snow is patchy or the ground muddy, ATVs are increasingly utilized, "often resulting in damaged trails and the cutting of new trails, which can result in 'braiding,' and accompanying erosion and degradation."¹⁵⁹ Accordingly, the people of Nondalton are taking measures to remediate some of effects of ORVs on trails used to access Fish Camp: "The family [from Nondalton] also assisted with the upkeep of the trail between Nondalton and the fish camps at the outlet of Sixmile Lake by filling rough spots with gravel. ...They said they usually did this during breaks from fishing."¹⁶⁰

Trails currently link an almost limitless network of areas across the state of Alaska, providing access to places otherwise remote. One source described how his cousins "drove from here on their snowmachines all the way to Dillingham this winter. ...They went all the way down to Ekwok to go try to get a caribou. ...You could almost make [the trail] endless. Like I said, during the wintertime, if it's a good winter, you could go anywhere" (RK). The connections forged by the trails are both physical and cultural, as they link not only a constellation of locations and a diverse range of resources on the landscape. They also link inland Dena'ina to their ancestors and history. The trails continue to serve as principal arteries, defining connections between places still used, visited, and valued by Dena'ina people throughout their traditional homeland.

Trees hold a place of unique importance in traditional Dena'ina culture—a status overlooked in most written accounts. Trees are understood not only as living, but as nominally conscious or sentient beings. Moreover, the life cycles of trees are said to parallel human life cycles: with trees starting off young and limber, and becoming more brittle as they age. So too, without proper nurturing and nourishment, trees risk becoming bent, rickety, and even inflexible. As a matter of Dena'ina cultural practice, "you show them respect" (GE). Pauline Hobson explains, "Plants: know the edible and non-edible plants for survival. Respect the plants also, especially the trees—they have spirit too. If you disrespect it, it will change your luck in life."¹⁶¹

Respect for plants is shown in myriad ways. Trees are not cut or killed casually, but only when a pressing need exists. Traditionally, even when a tree is killed, certain respects are shown in how the tree is approached, and how the wood is handled: "even when you cut wood, you don't just throw them anywhere. You pile that up nearby. ...That stacked wood can be a home for the animals" (KE). While the inland Dena'ina freely use wood and modify trees in various ways, this notion of respect organizes their relationship with trees, placing limits on the uses encountered on the land. This relationship manifests on the landscape in enduring ways. Among the most visible and enduring traces of Dena'ina traditional land use are many "culturally modified trees" (CMTs). In the greater Chulitna River Basin, several types of CMTs attest to the extensive use of the land, and to cultural values and practices manifested over deep time.

Along the vast trail network that traverses the study area, one finds blazes (*kle'aknithle*), serving especially to mark trail routes. Blazes are concentrated at trailheads, at trail fords and portages over waterways, and at seasonal campsites along trails. Olga Balluta describes how the blazes were made long ago: "Over the summertime, they used to make the new trails where they're traveling with only their dogs and their backpacks; that's going camping. But they have to make a mark on the trees...with an axe, just peel it on each side as they're going." (OB). As George Alexie explains, these practices persist as part of modern trail maintenance and creation: "Pretty much all the trails [along the Chulitna River corridor] are mostly winter trails and they're all blazed out pretty well...we tend to mark trails pretty well" (GA).

Blazes are thus widespread, if subtle, elements of the cultural landscape. Positioned for maximum visibility, blazes tend to be at chest height, consisting of vertical areas of removed bark, roughly 1.5 to 2.5 feet in length. Trees are sometimes pruned of lower limbs to make the blaze more visible: "Just the blaze and they'll limb it way up quite a bit; they sometimes do this 'on both sides' so that it can be seen from both directions" (GA). On winter trails, blazes tend to be higher than those on summer trails, to accommodate the depth of snow. They are found on conifer and hardwood trees alike. Non-Native travelers, such as trappers and hunters, have also created blazes on trees in this area, yet Dena'ina consultants indicate they can usually distinguish blazes made by local, Native travelers from those made by outsiders, based on stylistic differences. Bark peels easily in the warm months, but takes more force to remove in the winter when the sap is not running. Knowing this, and assessing the condition of a blaze, one can sometimes assess the time of year the blaze was made. Older blazes, in particular, have the look of laborious chopping with steel tools. Especially old and important blazes can cut deep into the underlying wood.

Carefully located blazes help reduce disorientation on the landscape. They are highly important for safety so that travelers do not become disoriented or miss a key turn or camp when traveling in inclement weather, at dusk, or at other times when navigation is difficult. As some interviewees note, disorientation while traveling along trails can be deadly, especially in very cold weather or whiteout conditions.¹⁶² In this context, crossings at waterways are considered especially challenging because the shoreline vegetation can be dense, ice conditions can require detours, and trail crossings of rivers can become key intersections. It is easy to miss an important turn along the way. In these settings, blazes are especially important. Accordingly, along the Chulitna River there are "several places [where] there's a portage that goes over the river. Instead of following the crooked river, blaze it out real good, so you can pick up the trail on the other side" (GA).

In addition to marking the pathways of trails, blazes mark key landmarks along a trail that are important for travelers, such as turnoff points for cabins or camps not detectable from main trails. “They had their own special mark where they hunt and camp. They would... mark trees with axe so they know where the trail is. They chop through the area to make the trail.”¹⁶³ Trappers also use blazes to locate their traps along traplines within the study area. Clarence Delkettie, for example, maintains blazes on trees along his traplines, adding new blazes as needed: “Just where I got my traps sometimes, I’ll mark or blaze a tree. Then I know I got a trap set there. Pretty much all the trails I know. Once I run all over on a snowmachine, I know it’s there. [On less known or visible trails] we should start blazing it so we know there’s a trail there” (CD).



Blazes on spruce trees, marking a trail crossing over Chulitna River.
DOUGLAS DEUR PHOTO.

Blazes from the distant past hold special importance, like the trail networks of which they are a part. They are often the handiwork of the ancestors, constructed to transmit knowledge of the landscape and potential hazards for the wellbeing of those to follow. Blazes are said to function like Dena’ina trails or place names, conveying cultural knowledge of a place’s attributes across time, from ancestors who are no longer able to speak for themselves. These blazes are literally the handiwork of long-gone parents, uncles and aunts, grandparents, great-grandparents, and beyond. As such, they represent the few traces of ancestors visible on the land. Touched by the hands of these ancestors, providing messages across generations for the protection of the living, the oldest blazes have been described as “culturally important,” and even “sacred” by modern Dena’ina people.

Recognized for their great importance as navigational landmarks, blazes are considered superior to markers, which can be disturbed or buried by snow: “It wouldn’t do any good to put stakes up. The bears will knock it up and tear it up and move it” (GA). However, other types of markers are sometimes used. For example, in open snowy country, as in mountain passes, poles are at times embedded in the ground to guide travelers. In a few instances where blazes are not practical or a person is only traveling through an area briefly, Dena’ina travelers have made marks by wedging a ball of moss or lichen in the

forked branches of trees. Though not as durable as a tree blaze, these moss markers are at times visible many years after their creation (GE).¹⁶⁴ “If they’re only going for a week... they’ll put moss on the brushes, you know, a big patch of moss: that’s their markers as they’re going” (OB). So too, in places where trees are not present but navigation is challenging, elders such as Andrew Balluta described the placement of long sticks, or poles tall enough to be seen above the rising snow levels, to mark trails: “When you are traveling across the mountains where there is no vegetation, this is the way to go straight, going from pole to pole. My dad did this.”¹⁶⁵

Dena’ina travelers still create new blazes—marking new trap or camp sites, or the routes of new trails. People also look after blazes each year, especially those they have created themselves, improving them as needed so they can be seen and so tribal members less familiar with a trail can find their way: “Every year, they’re improved a little... I know Darren [Cartikoff]—I’ve followed his trails quite a few times and his trails are blazed pretty well” (GA). People will remove pitch or hanging branches that have obscured the blaze, or remove additional bark to keep the blaze open and visible.

When not maintained, some trails become overgrown and are largely detectable only on the basis of old blazes. They get “grown over really good” (RK). Clarence Delkettie observes that one older trail between Chulitna River and Sixmile Lake is among those inferred on the basis of old blazes:

“There’s a couple trails like [that]. This trail in fact, from Snowshoe Bay toward Chulitna...hardly anybody goes that route anymore. They go this other route over here and it’s longer [and they] come out over here where Butch and them is at [near Owl Bluff, on Chulitna Bay]. So if you took this [old] route, it’s probably growing in because nobody goes that trail... It used to be good going. If you’re trying to go up the Chulitna River that would be a short-cut” (CD).

If a trail is not maintained and modern travelers attempt to use it, they can get disoriented or bogged down in the very slow and arduous work of clearing the trail. As Randy Kakaruk says of one such trail he encountered, “I probably broke a trail that wasn’t the main trail in a couple places because it was so thick” (RK). In reopening older trails, blazes provide critical clues—in this case, not aiding potentially disoriented travelers but aiding potentially disoriented restorers of the historical trail network.

Beyond blazes, other kinds of culturally modified trees are seen on the landscape, linked to traditional travel, camping, and other activities common within the study area. Partially limbed trees, for example, are also widely seen within the Chulitna region. At campsites, the lower limbs of spruce trees are removed “to clear the area a little bit” and allow for a larger camp area (GA). Axe-cut branches, their stubs visible up to roughly 6 feet in elevation, are common at well-established campsites. Limbs are not always removed from the full circumference of a tree, only on the sides where clearing is necessary or helpful to campers. Usually it is the lower branches that are cut. Not only is this due to the accessibility of lower branches, but because it leaves the standing tree with upper branches intact and available for other uses. In many cases, the remaining branches on standing trees serve as de facto shelters overhanging camp sites, improving cover from the elements. Especially in deep snow or inclement weather, the spaces beneath can become an impromptu or emergency shelter, sometimes half-seriously called a “homemade” or “siwash” tent. This kind of culturally modified tree can also provide extra rain protection and insulation to fabric tents or other types of temporary shelters built underneath the canopy of branches, creating natural shelter where gear, poles, and firewood can be stored out of rain and snow while camp is occupied.



Poles, stockpiled for later use below the branches of a partially limbed spruce tree at an unoccupied camp along Chulitna River. DOUGLAS DEUR PHOTO.

Temporary camps, built in response to short-term need, have also been widespread. Under extreme circumstances, these camps are little more than hastily constructed shelters. If severe weather arrives while Dena'ina people are traveling, or somebody falls into water in subfreezing temperatures, travelers might enter the edge of woodlands, find a tall alder or willow, hollow out the branches at its center near the trunk, and camp inside, leaving long outer branches draping to or near the ground like a tent. Hasty fire-making is also common at these camps. This involves the quick gathering of dead lower branches from trees, or even live branches if other options do not exist. These activities too leave their a unique signature on campsite trees.

The presence of culturally modified trees at campsites—especially those larger and more enduring—are also meant to aid unspecified future travelers passing through the Dena'ina landscape. Sets of wooden poles for tent construction, as well as dry firewood or branches for fires, are often left stockpiled under branches for the next visit or visitor. Poles are typically stockpiled upright, leaning against the sheltering tree, to keep them off the ground and to prevent rot. Leaving such materials at a camp is deemed important for safety, and a kind consideration of the next user, regardless of whether the user is oneself, a family member, a friend, or a stranger. “They always thought ahead for other people” (GE). Like trails cut through the brush or blazes on trees, the presence of limbed trees and stockpiled poles is a mnemonic of importance to travelers. Younger hunters say they can easily find old camps as they travel, and use them as necessary, based on blazes, as well as stockpiled poles, cleared trees, and other evidence: “I can always find campgrounds, like old poles, cans and something like that” (CD).

The lower branches of trees in or near campsites are sometimes removed to accommodate curing firewood cut into logs and stockpiled for later use—a CMT use slightly different from other types of branch removal. Likewise, logs cut from

living, fallen, or upright dead trees are commonly stockpiled in these places to dry. This is traditionally done at camps, but also at wood-harvesting areas nearby. In addition, branches, birch bark tinder, and other fire-starting materials are commonly stockpiled with wood under such trees. Pitchy wood or burls are useful fire starters as well, allowing for the quick starting of fires in cold or emergency conditions. Indeed, fire-starter materials are critical for the safe use of camps. When crossing rivers and streams, Dena'ina people have sometimes kept tinder and other fire-starting materials on top of their heads to reduce the odds of damaging such essential gear. Burls and gnarled trees hold a special place in Dena'ina oral tradition, as elders say a tree with many burls “doesn't have a clear mind...it is confused and grows in many different directions” (KE). As for the best fire wood, driftwood is said to be best for those who travel. Piles of driftwood sit under the cut branches of standing trees and far from the shoreline—evidence of firewood gathering. Driftwood is preferred because it is often found dry on rocky or sandy shorelines, requiring relatively little labor. Furthermore, harvesting driftwood does not harm living trees, and driftwood often contains a disproportionately large number of riparian deciduous hardwoods, such as cottonwood, producing little smoke or sparks and imparting no unpleasant flavors to food. Driftwood harvesting along the Chulitna River, and on the lakeshores throughout the study area, is a time-honored practice.

Branches removed from culturally modified trees are not wasted, and indeed have a number of important functions. Often they serve as temporary bedding while green. Beds of spruce boughs, covered in caribou hide, have been a common feature of camp life: “you change them every so often when

the needles begin falling off... Boy, I liked that smell!” (GE). When the branches begin to dry, they are stockpiled on site as fire-starter, and new limbs are gathered for bedding. In the process, the limbs sometimes become impromptu brooms to clean campsites—before, during, and after the time spent camping. The dead or dying lower branches of spruce trees are also removed and used as quick fire-starting material. In some instances, inland Dena'ina men begin gathering the branches for fires almost the moment they pull ashore along the Chulitna or other waterways, a reflexive practice reflecting generations of experience making camp when cold, damp, and in need of a quick fire. Over time, these practices further open the campsite, keeping it free of branches and reducing the risk of accidental wildfire on the margins.

Occasionally, saplings are topped as people clear the surface of the snow at winter campsites. When cut off at the snow line, they are incompletely cut. By summer, these trees present as topless saplings; and sapling tops taken this way are often used as fire-starter when other wood sources are scarce.



A sapling, cut to clear to the level of the snow at a winter camp along Chulitna River. DOUGLAS DEUR PHOTO.

Large and small stumps also surround many of the camps. Some portion of these are related to firewood procurement to support the camp. But in many cases, poles for tents and other camp uses are cut from straight trees around the camp edge, leaving rather uniformly sized, small-diameter stumps. Disproportionately, these stumps are spruce, reflecting a longtime preference for spruce in constructing caches, steam baths, fish racks, fish rafts, fish wheels, and many other tools and implements such as dip nets and sleds.¹⁶⁶ As Dena'ina elders have indicated to Kari: "Spruce is the single most important plant to the Dena'ina because of the many uses they have for it. The fact that the Dena'ina name for spruce, *ch'vala*, or a variation of it, is also the name for 'tree' signifies the value of the spruce to the Dena'ina."¹⁶⁷ In a few cases,



Stumps dot a firewood gathering area along the Timber Trail west of Nondalton Fish Camp. DOUGLAS DEUR PHOTO

standing small trees—cut or uncut—are incorporated into the underlying structure of camp tents, drying racks, and other camp infrastructure. Often these trees have bends, scuffs, or other marks demonstrating past use in and around camps. For some traveling remotely, these stumps and bent trees are beacons of past use, hinting at the presence of good camping sites, even if the site's history is otherwise unknown: "see old cuttings sometimes... like where they cut logs down or something—out in the woods" (CD). Stumps and bent trees instantly reveal that camps or settlements of former importance are nearby, implying the proximity of fresh water, good game, and other desirable attributes.

Firewood was commonly cut in areas surrounding major camps—especially as cutting tools became more available over generations. Spruce and birch are the main sources of fuel in the region. While many households rely on electric or oil heat during the winter, in some households spruce and birch remain the primary sources of heat for warmth and cooking, and a fallback fuel for families when oil supplies run low.¹⁶⁸ So too, firewood is crucial for cooking and smoking food, such as salmon procured at Fish Camp. While wood harvesting accelerates at certain times of the year, such as in preparation for Fish Camp or in the winter when people cross the ice to harvest away from the village, the harvesting arguably occurs at some level year-round.¹⁶⁹

Fish Camp provides an example of the general practice of wood gathering, representative of patterns seen throughout camps in the study area. Firewood harvests in forests west of Fish Camp center on spruce, birch, alder, and other common species. The hardwoods—birch and cottonwood—are especially sought as they produce less smoke and sparks, a characteristic important for home or camp use. On the other hand, their smoke is the most suitable for the smoking of fish. Stumps from trees cut for smoking purpose can be found in the woodlands surrounding Fish Camp; and at the camp, the main cutting areas are accessed by a route called the "Timber Trail." (Similar trails are found behind other camps formerly serving as locations of intensive food processing.) The Timber Trail extends from networks between Fish Camp and Nondalton, entering the densely forested woodcutting area with large trees and grassy understory. Here, stumps are sometimes of considerable antiquity, decomposed and draped in lichen, suggesting generations of tree-cutting in the same general area. Peeled birch bark scars are also numerous in this grove. Similar concentrations of stumps from firewood trees can be found around camps of past or present consequence. Though utilitarian in origin, even these stumps are described as culturally significant by some Dena'ina, being landmarks of their recent ancestors, touched by the hands of loved ones long passed. This area is not only visited in recent times, but oral tradition suggests it was visited by families with dog sleds who stockpiled wood and other materials for camp and home use, in preparation for the year ahead.



A boat landing area beside Nondalton Fish Camp, where trees and brush are traditionally maintained to facilitate access. DOUGLAS DEUR PHOTO.

Along the shoreline of navigable riverbanks and lakeshores, one commonly sees another category of CMT, where trees overhanging the banks have been cut, leaving moderate-height stumps along the shore. This is done "to get rid of sweepers," eliminating trees that put boaters at risk of injury from overhanging branches, and that prevent easy access to and from the bank. In some cases, remnant stumps are left behind so people can use them to stabilize boats, as handholds when getting in and out of boats, or to tie off boats along the shore. (Somewhat similarly, people also report removing both sweepers and underwater algae or vegetation in ice fishing locations, so they can access open water more easily.) Appropriately enough, this type of culturally modified tree is found most abundantly on the shorelines beside villages, camps, and major fishing areas. Several, both old and new, can be seen at Fish Camp.

Similarly, traditional trail maintenance involves the removal of "sweepers," resulting in distinctively marked trees. As part of annual trail management historically, branches hanging low over trails and threatening to strike dogsleds, their occupants, and dogs, were cut back, leaving fully or partially cut branches along the margins of the trail. With the advent of ATVs and snowmachines, people move at greater speeds and at slightly different elevations relative to trees, making the removal more imperative. Cutting has become much more efficient with the availability of lightweight powered saws. For this reason, some interviewees attest that the removal of "sweepers" along trail networks has changed in recent decades, becoming more common, and involving branches of different elevations than those targeted by earlier trail managers. These can be identified as cut branches and "stubs" protruding from the sides of standing trees.

Topped spruce and birch trees are also widely seen in the study area, another kind of culturally modified trees. These are most common at lookout points, such as on bluffs like Lookout Bluff along Chulitna River, where conifers tops are removed to provide open, clear views of hunting areas. Men sometimes set aside extra time during the hunt just to clear these viewpoints—pruning from below or even climbing into trees to remove top sections. The trees are only pruned near their tops. Consistent with Dena'ina conventions, much effort can be expended to not kill the tree unnecessarily, or if it is necessary, to salvage the wood for other purposes. When managed this way, "they don't die: they just grow back" (BH). Very often, trees that are topped will be difficult to detect years later, as upper branches begin to grow upward to replace the top. For example, at Lookout Bluff and other places in the study area, one must look closely to detect the cut middle stem of the tree amidst two or more newly established treetops. In older topped trees, new tops, recruited from lateral branches, can reach six feet or more in height.



A spruce tree with the top removed to open the view to hunting areas below, Lookout Bluff. DOUGLAS DEUR PHOTO.

Other types of culturally modified trees are visible on the land, less directly tied to navigation and travel, but linked to fundamental networks of settlements and trails throughout inland Dena'ina traditional territory. For example, in many places one sees peeled birch trees where an exterior band of outer bark has been removed for use in baskets or other traditional crafts. At one time, birch bark was used to make sun visors, moose call “whistles,” baby carriers, plates for food, food storage barrels, and even box-like containers for boiling food with hot stones.¹⁷⁰ As Mary Hobson reported, people use “birch bark for dishpan, for basin, for steambaths, that birch bark basin... Everything birch bark, everything. Our plate: birch bark. That’s all we used, birch bark everything.”¹⁷¹

Hannah Breece described a birch bark gathering trip with women from Nondalton during her stay at Fish Camp on the shore of Sixmile Lake in 1911:

“One day the women invited me to go with them to get birch bark for baskets, a round-trip of 10 miles. The grove was perhaps the loveliest place I have ever seen, before or since. The white trees stood wide apart, straight and far-reaching, each in its own space, not spindling but a foot or more in diameter. Short, light-green grass, in places almost hidden by the white blossoms of the moss berry, covering the ground. A lazy brook meandered through the gently sloping grove, reflecting the ferns overhanging its banks and the delicate foliage of branches arching above.... The women, laughing and happy, wore beaded leather shields at their waists. Drawing sharp knives, they skillfully stripped off as much birch bark as they could carry. ...The next week, among them, they made me seven baskets from my share: handsome, waterproof, and durable.”¹⁷²

Today many of these diverse uses—from visors to food plates—continue intermittently, though most birch peeling is related to the continued practice of basket-making: “For baskets, that’s why. We see that everywhere. There’s peels of them [from the birch tree]” (RK). Often, large pieces are required for these purposes, so that big trees are traditionally identified as people travel, and reserved for future use. Smaller trees are sometimes peeled too, for fire starter and other uses. In the past, large quantities were gathered for this purpose: “they used to pick birch bark, put it away in gunny sacks and use it as fire starter...and you can eat that birch sap too: it’s sweet...we used the little trees for that...peel off the outer bark to get it” (GE).

Elders consistently explain that bark is peeled respectfully, in a manner “so you don’t kill the tree,” by only taking what is needed, avoiding the inner bark, and often leaving a small strip of outer bark attached to the tree. “They don’t die if you just take the top bark off” (BH). Done very carefully, one can harvest enough bark to produce small conical shelters—a historical practice not often seen today.¹⁷³ The showing of respect to the tree is traditionally understood to be important in the process of gathering, especially if the basket, moose call, or other item made from the bark will contribute favorably to the life and work of the maker. The energy of the tree, affected by its encounter with the harvester and craftsman, is said to live on somewhat in the object created from the bark. If the tree dies, the harvester often returns to salvage the wood, thus demonstrating respect and the absence of wastefulness.

Similarly, slabs of spruce tree bark are sometimes peeled from living trees as a surface for cutting fish or as a temporary roofing or floor material in camps. Entire temporary shelters have sometimes been made of poles and peeled tree bark. While pieces of bark needed for this purpose are large and usually removed from dead or dying trees, a few CMTs with large sections of removed bark seem to have been used in this way. Standing dead trees are at times partially pulled apart to acquire reddish-orange pulp used in the tanning and dyeing of moose hides. While the traces of this practice do not last long on the sides of rotting trees, some interviewees have encountered logs pulled apart for such purposes. Concurrent with woodcutting, some families gather fungal growths from the sides of birch trees. These are burned in such settings as Fish Camp, as the smoke is known to repel mosquitoes, and certain types of fungus are used as medicine. While the physical traces of this practice are fleeting, cut fungal growths have been reported in some woodcutting areas within the study area.

Spruce pitch is also gathered traditionally for internal and external medicines, as well as for waterproofing and other purposes. Within modern Dena'ina medical practice, this sap is popular for sealing wounds, as a drawing salve, and as a tooth-cleansing gum. Rick Delkettie, for example, describes the enduring use of spruce pitch for wounds: “That clear pitch you see on that black spruce.... On that black spruce too that [has] little tiny green too, you make a band-aid out of it” (RD). Another Nondalton resident notes “They use pitch too, for cuts—gather pitch—it stops the bleeding.”¹⁷⁴ Pauline Hobson mentions use of the pitchy inner bark of the spruce for this purpose: “You can also use the inner spruce bark, the white part. Put it on the cut with the pitch and the bleeding will stop and it never usually leave a scar!”¹⁷⁵ Spruce pitch has other uses as well. It is sometimes used as a sealant in craft projects, though this practice is relatively uncommon for everyday use due to the availability of cheap and effective alternatives. In places within the study area, one still can see pitch-gathering scars—lateral cuts in the spruce bark where sap has been allowed to flow from the tree. These scars heal with time, so that many appear to be horizontal anomalies in the bark’s texture, close to chest height. In some cases, these cuts are relatively deep, incising marks into the underlying wood of the tree, perhaps evidence of “pitch wells” intentionally designed to capture dripping pitch for later use. Like all of the culturally modified trees discussed here, these features evidence ancestral use of the landscape. When living tribal members see these marks, they instantly perceive them as physical reminders of enduring Dena'ina cultural values and practices, touched by the ancestors, often still providing healing and insight to modern people. In this respect, as with all of the CMTs, they are viewed as “cultural resources” by the Dena'ina, and by some portion of the community, even as “sacred.”



An old, defunct log cache structure at Nondalton Fish Camp. KAREN EVANOFF PHOTO.

The Vegetation of Campsites

In addition to culturally modified trees are other types of vegetation “signatures” visible at inland Dena’ina camps in the study area—reminders of long-term human use, and in some cases evidence of that use over time. The signatures are reminders of cultural practice and knowledge relating to the lands and resources of the greater Chulitna region.

For example, people traditionally clear brush from the margins of camps and food procurement and processing stations like Fish Camp. This is said to reduce the risk of surprise encounters with bears drawn to the scent of food. As Gladys Evanoff recalls, this was traditionally done at almost any camp, especially where food procurement and processing was taking place: “Everywhere they stay, they chop all the brush away...the reason they did that was to be able to see the bear coming around. Back then we never had to think about bears [at camp]” (GE). Elders once said that bears loitering near human settlements was a bad omen—not only due to threats of hazardous bear encounters, but to misfortunes not materially related to the bears presence. The fact that vegetation clearing on camp margins is no longer done on a regular basis is a point of concern to elders who see the great risk of bears approaching camps full of children, elderly people, and abundant food.

The clearing of vegetation around camps and the intensified human activity within the cleared spaces, makes the groundcover of camps distinctive as well. In many places where villages or camps were large or enduring, grass grows instead of lichen or other groundcovers typical for the area. Inland Dena’ina people sometimes say: “we have a scent the grass is drawn to” or that follows in their wake (GE). Elders traditionally commented on how grass mostly appeared inadvertently at camps, and would persist at camps even when they were no longer in use: “They can move to a place where there is no grass and grass will appear; if they move away, the grass stays there to show where they lived...the grass shows you where people used to live...they called that *kechán*, meaning ‘grass’—that’s grass growing after people stay there” (GE).

In settings where trees and branches have been cleared in and around camps, followed by the camp not being maintained for years, new and emergent vegetation can be seen, at first within, and soon in place of, grassy clearings. Along the Chulitna River and lakeshores of the study area, interviewees consistently identified former camp areas where relatively young stands of birch grow in anomalously dense thickets along the shore. Campsites known only through oral tradition can be found in this condition. This vegetation pattern is so consistent that certain dense patches of shoreline birch without known histories as campsites are assumed to be historic campsites based on this kind of vegetation (BH, PH).

As a result of Dena’ina land ethics, the vegetation is often the only readily visible clue of the landscape’s past human occupation. Beyond practices outlined here, campsites are traditionally left very clean, devoid of debris or items other than stockpiled firewood, tinder, and tent poles for the next visitor. Garbage and other debris are burned or removed to show respect both for the land and for those who will follow: “they pretty much left it pretty clean because I’ve never seen you know, no garbage up Chulitna...trying to keep the places clean out in the [land]. While they camp you know, don’t leave your garbage laying behind” (CD). Only fire pits remain visible in this context. A few, but not all, may be surrounded by a rock ring:

“Once they leave, it doesn’t really look like anyone was there other than the campfire. ...[U]sually a sign for that is ... they make rocks around it so it doesn’t spread. ...[T]hat’s usually a sign that someone was there. But for the most part [it is hard to see signs of camps.] I mean it was always told to us, you know: respect the land, you want to leave it the way you found it” (RK).

Especially in past times, camps occasionally had caches containing food, fire-starting materials, traps, hunting gear, and other materials needed by resource users on the land. Today, these items are more readily carried to and from villages by ATV and snowmachine, so that stockpiling and caching of camp goods persists only in much reduced forms. Yet even the old caches and other structures quickly disappear from many settings, leaving few traces detectable without recourse to archaeology and oral history. Clarence Delkettie describes one relative’s camp that became invisible after just a few decades’ time:

“He had a smokehouse, a cache, and all of that was standing there, but it all fell down and now you look there and you couldn’t even tell anything was there. No cabins or nothing. Everything fell down on the ground and rotted away.... It’s hard to imagine like logs and stuff, you could have a whole town out there built out of logs and seventy, eighty years from now you go out there and nobody tends to it, or you don’t preserve the wood, guess what’ll happen...? It’ll look like there was just nothing there; all the weeds and grass and brush and trees will grow over. And it’ll look like a natural setting.... You wouldn’t hardly recognize [a cabin from the early 20th century]. They didn’t have nothing to preserve the wood back then. If they did, you’d be seeing something” (CD).

With most camp structures made of wood, the traces of the old structures are fleeting. Well-documented cabins of the early 20th century, encountered in the course of field reconnaissance for this study, often looked like vaguely rectangular mounds on the earth, if detectable at all. First and foremost, it is the vegetation signatures—the grass and birch groves, cleared brush, and distinctive culturally modified trees—that stand in testament to longstanding Dena’ina use and occupation of the landscape. Together with the oral traditions of Dena’ina elders and the outcomes of archaeological investigations, they are enduring markers of human use and occupation, and landmarks of profound cultural significance to modern Dena’ina.

Burials, Sacred Sites, & Other Places of Unique Importance

Among places of enduring concern and significance to Dena'ina people are burials and cremation sites. In fact in interviews, some Dena'ina consistently use the term “sacred site” to refer to burials, as they are understood to be culturally, historically, and spiritually important places. Evidence of cremation and other methods of interment prior to European arrival do exist, with a shift to Russian Orthodox burial conventions accompanying conversion to that religion. Such gravesites are widespread throughout the study area, especially along Chulitna River and Chulitna Bay, but also at a number of specific locations on the shores of Sixmile Lake and Lake Clark.

The broad distribution of burial sites reflects the fact that seasonal or short-lived encampments existed in many well-watered portions of inland Dena'ina territory. Over time, burials and cremation sites accumulated in close proximity to these settlements, usually located a short distance away on high ground, with views of the water. Eventually burial sites multiplied, with many sets of human remains interred over multiple generations. And as the placement of villages and camps changed over time, a pattern of burials was left behind that uniquely reflects the evolving geography of settlement.

Still, the distribution of burials along the Chulitna River does not always align with settlements. In the days when transport of human remains to villages was slow and difficult, people were often buried “right where they died,” according to a number of elders. As Butch Hobson notes, “It was so slow that you couldn't get them back to camp or a village before they're pretty ripe” (BH). Similarly, Rick Delkettie recalls oral traditions about burials gradually accumulating at places like Long and Nicovena Lakes:

“If you look at where we traveled and where they used to [camp], and you'll hear stories about Long Lake in prehistoric times. So you know, they're going to [die away from home] unfortunately. So in their travels in that time period, there was no transporting them anywhere. [They buried people] near that site...and they went on their way. And there's quite a few sites like that” (RD).

Burials are thus said to accumulate in places with the highest levels of past human activity—such as along trails and key waterways where people spent the most time traveling from one settlement to another. Burials are predictably found in these locations, even if specific graves were not recalled individually in Dena'ina oral tradition. For this reason, elders such as Butch and Pauline Hobson attest that, along the Chulitna, “the entire riverbank is like one long graveyard,” with human remains of diverse antiquity distributed widely on high ground along the entire river's course. Most burials were said to have been marked originally, though markers have disappeared.

The placement of isolated or small gravesites has proven to be fairly consistent in field visits and field interviews conducted at interment sites in the course of this study. Gravesites commonly sit at roughly 20- to 50-foot elevation above the adjacent waterway, and at least 50 feet away from the water's edge—often, but not always, with a south- or southeast-facing aspect. Interviewees suggest this placement had both a functional and a cosmological basis. Views of the water, were said to have been cosmologically important and maybe facilitated abbreviated “visits” to the gravesites by families passing via watercraft, even if they did not come ashore. Moreover, this placement kept human remains away from fresh water sources.



Burial sites at Kijik village, recently documented and marked with stakes. DOUGLAS DEUR PHOTO.

Placement up and away from the bank also ensured that river and lakeshore users traveling along the banks for various purposes did not inadvertently contact or harm the integrity of human remains. Burials were intentionally located “at a place where they know people wouldn't walk” (NC). For coming into casual contact with human remains is traditionally understood to be undesirable, even hazardous, for reasons physical, psychological, and spiritual. Spatial “hygiene” is applied in these cases, so that people pass without such casual contact. If gravesites *are* encountered, many people show traditional precautions and observances. “Burial sites were respected: you don't walk near it, don't play near it, don't yell when you're there” (KE).

In some cases, as when epidemics arrived at Kijik, burials were made hastily and in ways that depart from these conventions, with burials in large numbers in the footprint of former settlements. The Kijik village site was largely abandoned by 1909, and large portions of the village were converted to burial grounds. Ground penetrating radar (GPR) has identified many of these potential graves in recent years, and the graves have been marked for protection in the course of future site use and management. The Kijik village burials contained a few hundred individuals, their gravesites originally marked with Russian Orthodox crosses that are now long gone. Elders report having had dreams and visions of this vast burial complex shortly after its creation. In Dena'ina oral tradition one finds references to “ghost villages” that may be very old village sites, long abandoned and converted to burial/cremation sites even prior to the departure from Kijik Village. One such “ghost village” is reported north of the current study area, near Miller Lake.

Conventional graveyards are found in the study area as well, in association with Nondalton and other small settlements of the 20th and 21st centuries—close to the town. Selected gravesites are marked on the maps of this report, in fact, but should be understood only as representative of graves reported and identified in the field. It is likely the actual distribution of burials and cremation sites is much broader, especially along historical trail routes and shorelines.

Because of the diffuse nature of burials, excavation of archaeological sites is seen by many Dena'ina as problematic. Traditionally, artifacts and other objects removed from burial sites are said to have their own “powers” that travel with

them. These powers are said to be potentially disruptive, even hazardous, to those who carry them or excavate them, and perhaps even the descendants of the people who interact with them. This sentiment is not universal, and certainly some Dena'ina participate in archaeological excavations with great skill and interest. However, the sentiment is sufficiently common that it must be factored in to planned archaeological activities in the region.

These traditional views relate to burials in a multi-faceted way. For example, interviewees seem to understand that the spirits of the dead continue to dwell among the living, and that they occupy burial and former settlement sites. This understanding is prevalent, though not widely discussed publicly. Those with training or special sensitivities are able to sense the presence of ancestors, or the energies associated with burials, a sensation felt in the body and the mind simultaneously. Again, the burials are said to hold “power,” and the sentient spirits of ancestors remain in the sites in some form. People report feeling these sensations, even hearing Dena'ina conversation and songs, as well as laughter and footsteps, in former villages—especially north of the study area, in the former village of Kijik. Some report hearing and feeling indications that the ancestors are joyful in seeing Nondalton residents return to Kijik and other villages. Others report the intervention of ancestors in locating old settlements or gravesites. At such former villages and at gravesites, ancestors are understood to be looking over and making assessments of peoples' behavior and adherence to traditional values. Some also suggest the ancestors' spirits intervene to correct bad or disrespectful behavior at these locations, many suggesting this was true at major villages such as Kijik. As one interviewee recalled,

“I heard about guys getting spooked out of Kijik where the cabins are up there. And I think it was just the spirits maybe. [People were] up there at Kijik and they camped right inside the cabin by the beach.... I guess they got scared out of there because, I don't know; a ghost or something was bothering them. So they got scared. They moved down on the beach so they laid down on the beach there. And then something else started bothering them there on the beach. And so they had to get off the beach in the middle of the night—and this was all in one night I guess. So they got off the beach and they just climbed right in their boat and slept right there.... All these years I've been going up there I slept right in that cabin there and nothing didn't bother me. So I don't know why it would bother them, unless the spirits know they weren't all the way Indian or something! (laughs)” (CD).

Similarly, when a church group visited a Native allotment in the study area, they pitched tents on the edge of a bluff but the tents were repeatedly blown off the edge of the bluff, even in relatively mild winds. They determined that:

“There must be burials there and we were being told to not camp there— [elders] say spirits will do that, they will try to keep people away....people are reminded they need to leave those burials alone... when you go into a burial area you ask permission...you show respect... you always said 'forgive me for disturbing your peace'" (PH).

These beliefs and experiences contribute, some say, to a more cautious observance of traditional values by living Dena'ina people visiting former villages, gravesites, and other places where the ancestors are understood to be present and attentive.

Sacred Places

In inland Dena'ina culture, the concept of “sacred place” is complex. Traditionally, many kinds of sacred places are believed to exist, and the most important are recalled and revered today. The sites are respected not only because of inherent powers, but because they were visited by ancestors who revered the sites and sought them out in hard times. As the Russian Orthodox Church established itself in Dena'ina communities, many were reluctant to speak of these powers or to teach their children the places uniquely tied to them: “shamans and all that—those were things they didn't talk about when I was a kid...the elders didn't want the kids to know about it” (GE). Still, much is recalled, and the importance of these places is arguably rebounding among younger adults today.

Most of these sacred places have histories, powers, and properties encoded in “sukdu,” the traditional stories of inland Dena'ina people. And most of the sukdu pertaining to these sacred places describe the locations as venues where power people and other beings applied extraordinary spiritual forces to overcome hardships and threats to Dena'ina wellbeing, including threats to individuals, families, or entire communities. Most interviewees express that these stories, and the places linked to them, have potent instructional value for modern tribal people related to traditional ethics and to themes of resilience that continue to inspire. A few interviewees suggest that long after events narrated in the sukdu, the landscape carries a signature of past events, a power still linked to the landscape. And while potentially healing and restorative, the power can also be hazardous for those unprepared for it. These signature powers are realized and accessed by individuals to this day.

The most widely discussed sacred place in the region sits within the Chulitna River Basin, a place known as “Shaman's son's grave.” At the summit of the Lime Village Trail, where the trail exits the Chulitna Basin, is a mountain widely acknowledged to be a sacred place by modern Dena'ina people. The location of this place has a name that means “End of the Mountain.” The site is said to be perennially windy, and the ground bare from constant wind. Dena'ina oral tradition describes a shaman who once traveled along this trail with his son; and when his son died, the shaman buried him in place, consistent with Dena'ina burial traditions, though the location was far from their home village. Deeply dismayed that he would not be near his son's grave or able to attend to it regularly, the shaman declared he would transform the spot so that constant wind would keep the grave clean and clear of vegetation. As George Alexie recalls,

“That area, even on a flat, flat calm, calm day, there's always a breeze right there; always. And [we were told] his son died and when he was burying him, he said, 'Well, I'm not coming back to your grave.' Put them in a—keep it always dusted off. Boy it blows like heck and it's always bare ground in the wintertime” (GA).

The wind and the condition of the site today serve as reminders of his pledge, the powers of shamans, and the pain of those who must inter loved ones along trails far from home. This oral tradition—one of few well-known accounts of sacred places among modern inland Dena'ina—reflects not only the time-honored tradition of burying loved ones far

from home, but the enduring tradition of looking after burials and being attentive to their fate. Even today, when passing through this location Dena'ina people stop to acknowledge the site and its importance: "It's talked about. We always stopped there and said, 'See this wind? He's taking care of his grave'" (GA) The story is said to speak across generations for many reasons. The wind is described as a persistent manifestation over time of people who passed and perished long ago. These places are said to deserve special consideration and protections in modern land management contexts due to their multi-layered significance. As Rick Delkettie notes,

// If you look at it, the sukdu stories that are tied to those places, [such as] where medicine man buried his son.... [That] should be protected because that's a burial site. And it's prehistoric. It's real old. And...the most important thing about it is, it's connected to our tribe" (RD).

Another site of similar importance is described as sitting in the "saddle" between the two summits of Groundhog Mountain. A family perished in this location and may have been interred at the site, leaving behind only the persistent wind. As George Alexie recalls,

// It was a family going over the mountain with a dog team. And they got caught in the wind, north wind; cold. And so they hunkered down there. There's no trees of course; blowing. And all of them perished except the baby. And she had her hand outside the blankets and she froze it [the hand]. And they said that little child grew to be a hundred years old. But she would cut fish with a board tied to her arm to hold fish, you know. And they would say that same thing: on the ground it was always blowing there. Once you get over the top, then it calms right down" (GA).

This was said to be a historical event, dating from well over a century ago.

Many other "sacred places" such as the sites known as "Votive Rock" and Priest Rock were mentioned in and around the study area. Priest Rock was discussed most often in interviews undertaken for this study:

// We also have what I refer to as sacred ground. I don't want to call it; it's a battle ground where our ancestors had battled before [on the lakefront near Keyes Point].... There was different places where that took place. There was also like Priest Rock for example. At one time they were trying to knock that thing down.... They believed that it gave people in that tribe there, which was our people back then, some kind of power. They failed. [They were people from] farther south. Southwest, south, northwest; Kuskokwim, Dillingham" (RD).



Priest Rock, a sacred and storied place in Dena'ina tradition, on the shore of Qizhjev Vena (Lake Clark). DOUGLAS DEUR PHOTO.

// The Aleuts said, 'if people could pull down this rock there would be a war....they tried but they couldn't do it...they saw they didn't have the power to fight....there was no war" (BH).

Other places just beyond the study region were cited as examples of traditional inland Dena'ina "sacred places." For example, landscapes associated with the life of the great warrior *Ts'ehdghulyaʔ*, who looked after and protected the inland Dena'ina from attacks by outside tribes. Most of the key sites mentioned are within the viewshed of the study area, on the mountains east of Lake Clark and Sixmile Lake (RD, GE).

Reflected in these oral traditions is the fact that battles sometimes took place in inland Dena'ina territory as neighboring Yupik and other peoples coveted the rich resources of the Lake Clark region:

“Our people here were well known for their abilities. And a battle they laid down...we have salmon over here until March in the Kijik. You go up there New Year's Day and get a fresh salmon. It might be a red and have a green head, but its sure swimming around...that was a big part of [it] that sustained our people in this area; how easy it was for food to be harvested versus other areas... You had salmon coming through down below [in other Native territories] and they're only there for a little while and it's gone...for some reason [ours stick around] I think what happens is there's quite a bit of spring water. And then it was warm water and now it's got into that water, higher mineralized and slows the clock down all [of a] sudden. Then they stay, you know, for quite a while longer. And there's not only that, there's other fish there” (RD).

Places like Priest Rock and the landscapes of *Ts'ehdghulyaʔ* are still seen as venues of manifested spiritual power because the sturdy people and landmarks of the Dena'ina region could not be toppled, literally or figuratively, by outside threats.

Again, the identity and location of these more distant places are encoded in oral traditions and tied to themes of special powers tapped to overcome hardships; and the landmarks are said to have powers because ancestors are present or accessible. While contemporary Dena'ina do not describe taking special trips to visit these places, they sometimes visit them while traveling for other purposes—a pattern of visitation likely rooted in pre-contact practices. As people travel, offerings are sometimes left at the sites as part of ritual engagement, and should remain undisturbed, as they hold their own special powers. Connections to spiritually potent landscapes still remain a significant part of the Dena'ina culture and identity today, facilitating a continued relationship between place, story, and ancestral lifeways over time.

Other kinds of landmarks are widely viewed as ritual venues, even in the absence of specific cultural information. For example, singular rock outcrops other than Priest Rock are said to have stories and powers that attest to their "sacredness." So too, caves have been found in the Lake Clark region that may have ceremonial significance, in addition to serving as caches at certain times (though no specific ritually significant caves were identified in the present study area). Springs are said to have ritual functions and some—such as a spring on the top of Groundhog Mountain—are said to be visited regularly to this day, albeit mostly for utilitarian consumption.¹⁷⁶ Yet even larger landscapes are said to have spiritual power. The entire upper end of Lake Clark, extending from Kijik northeastward, is said to have deep and old power distinct from other parts of traditional inland Dena'ina territory. As described elsewhere, the intersection of ceremonial and subsistence tasks contribute to a larger perception that the entire Chulitna region, including, but extending beyond Chulitna Bay, is a "sacred place."

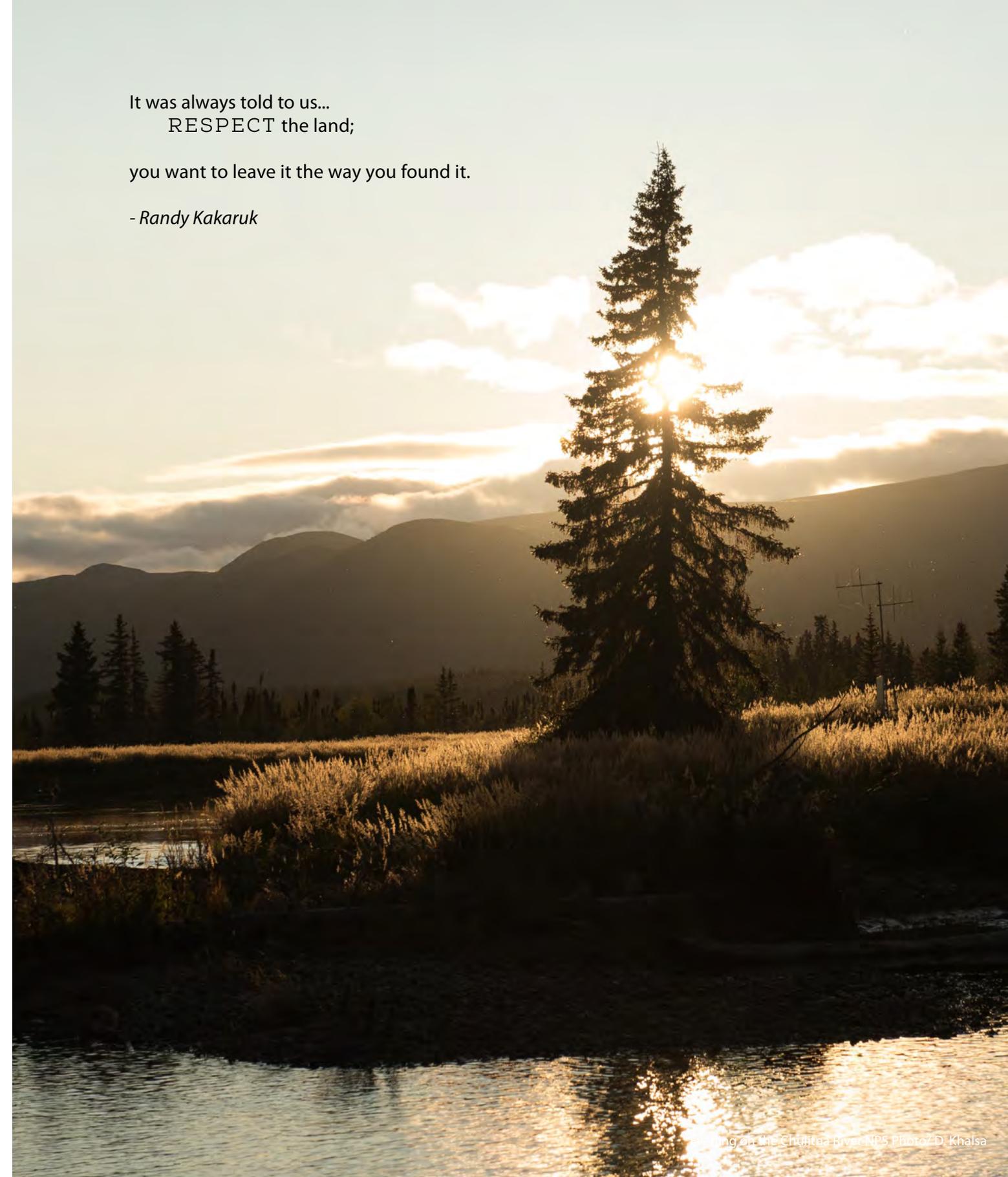
OPPOSITE PAGE:
Evening on the Chulitna River

NPS PHOTO / D. KHALSA

It was always told to us...
RESPECT the land;

you want to leave it the way you found it.

- Randy Kakaruk



Natural Resource Harvests in the Study Area: Key Themes

The Ethics of Taking: Dena'ina Perspectives on Hunting & Other Resource Harvests

Hunting, fishing, and the use of animal products acquired through traditional means, remain centerpieces of what it means to be inland Dena'ina today. On one hand, access to fish and game, and the knowledge to successfully acquire wild foods, is viewed as essential to Dena'ina food security and self-sufficiency. The cost of purchasing all food from outside the Lake Clark region is cost-prohibitive, and store-bought food is generally less healthy than foods from the land. Most understand that wild sources of meat provide more nutrients per pound than commercial substitutes such as beef—never mind cultural preferences for the flavors, textures, and other attributes of wild foods.¹⁷⁷ In fact, elders have predicted, even prophesied, that a time will come when the flow of outside food and other goods will be interrupted by some sort of cataclysm, and the game—along with enduring hunting traditions—will save the people:

“My mom told me that her mom and dad told her, they said, ‘Don’t get used to the White Man food because one day there ain’t going to be no more.’ [They said] the game and animals will be alive and good, it’s just the people that’s going to have to show them respect and let them know don’t kill too much so there’ll be more for later; learn to live off the land and learn to kill what you eat only. Don’t kill any more.... And teach our kids how to hunt and skin and live off the land because if you don’t teach them that and you get old like I said, there’s nobody going to be around to provide for you” (CD).

For this reason, the continuation of the hunt, and the perpetuation of the values and knowledge that guide the hunt, are said to be essential for the survival of the Dena'ina: “If you don’t show the younger generation how to survive off the land and respect each other, then that’ll be the downfall of the whole tribe” (CD). Moreover, “In the past, [hunting] trails meant *survival*, and when that [cataclysm] happens, they will be needed for survival all over again” (RD).

The passing of hunting-related skills from one generation to the next is therefore understood to be urgent, as important as anything an adult might do to support the community. These are cultural skills and values necessary for survival, but also at the heart of what it means to be Dena'ina. The cultivation of traditional hunting skill is said to bring focus, clarity of thinking, and resourcefulness. Elders traditionally admonish that, in all things, people should work to “have a strong mind,” and this applies as much to the methods and ethics of hunting as it does to other aspects of life (GE). Thus, interviewees spoke of raising children in the traditions, such as teaching them physical and emotional discipline when they are young, and how these disciplines relate to the hunt. Traditionally, elders woke children early and had them work diligently early in the day to make them strong and responsible, skills seen as necessary in all aspects of life. People also admonished

young people to not complain when tired, especially when participating in subsistence hunting and fishing. Some interviewees say this practice is needed more today, and that the transmittal of hunting knowledge will bring strength in many other domains.¹⁷⁸

Asked what constitutes the core of traditional teaching regarding the hunt and other subsistence pursuits, elders consistently identified a core cultural concept: “respect.” The ways respect is manifested in the hunt and in the use of meat acquired through the hunt, is an underreported topic, but one seen by modern Dena'ina as essential to their continued survival. The rudiments of these values are outlined here, recognizing this is merely an introduction to a rich and multilayered system of belief and practice. A more detailed treatment of these values is anticipated in a forthcoming study of Dena'ina “Expressive Culture,” overseen by coauthor Karen Evanoff.

Demonstrating Respect toward Game Species

To understand traditional notions of “respect” as applied to the hunt, one must first appreciate how animals are traditionally understood to be sentient, and to possess a spirit, or something closely analogous to spirit. So too, it must be understood that game are traditionally seen as provisions from the Creator, or at least from creative spiritual forces that reward good behavior and punish bad. While Russian Orthodoxy eclipsed some of these beliefs and values, many aspects of traditional belief remain intact. In some respects, they have been woven seamlessly into Orthodox practice.

Reflecting these underlying beliefs and values, some modern tribal members report that people with special training and abilities can spiritually “connect with animals.” They can monitor them remotely through spiritual means. They have dreams of animals that can reveal the animal’s movements and motivations—guiding hunting activities, but also causing hunters to pause such activities in defense of certain animals. They also can engage with animals to the point that they can “ride along with them” in spiritual form, traveling with walking moose or flying birds, for example. It is suggested that such skills were more common in the past, aiding in shamanic efforts but also in hunting as people became more intimately familiar with animals and their habits, motivations, and identities. A small number of individuals report participating in such practices today, their identities not mentioned here to protect privacy. These people report that the bond with a particular animal can become so strong it is difficult to detach; that they continue to ride along with the animal after they might wish to stop. One individual reports he could only detach from such travel with a moose when he passed out and fell into the water, jarring him fully back and breaking the connection. Similarly, people sometimes report receiving messages and omens from certain animals—ravens especially. Some also report receiving visions and guidance relating to animals. For example, one man got stranded in shallow side-channels of the Chulitna and was spiritually instructed to “follow the beaver” only to have a beaver appear and lead him down the only passable channel to the safety of the open river. These sorts of encounters are reportedly intimidating, even traumatic, for those not mentally and spiritually prepared. Yet they become incorporated comfortably into the spiritual practice of those both prepared and receptive.

The profoundly negative rebound effects of human disrespect toward animals is a significant recurring theme in enduring inland Dena'ina oral traditions. A number of story cycles describe people showing disrespect toward game animals, with the animals disappearing in response. On the other hand, when the people show respect and prove they have learned their lesson, the game return. Asked to describe key ancestral teachings that might be passed on to future generations of Dena'ina, interviewees of all ages cited the notion of respect as an integral part of the harvest. Gladys Evanoff offers:

“Respect the land. And respect the water. The land, it’s like part of us. You need to treat it right. You don’t just kill animals. You only kill what you need and you show your respect. You don’t even tease a moose. We have a lot of stories about that: kids teased a moose and the game all

went away. [It's all about] respect... Thousands of caribou used to come here...they stopped because people mistreated them.... Animals, you have to take care of them. If you don't treat them right they will go away from you. They give themselves to you [willingly], but they watch. They watch how they are treated and if you don't treat them right they will go" (GE).

Randy Kakaruk also summarizes what he sees as the core Dena'ina teachings on respect:

“that's something that has to be taught to everyone..., like especially younger generations. They have to understand that when you go hunting or anything, we're using something from the land. You have to have respect for it" (RK).

These themes of respect weave through oral traditions regarding non-game species, too. There are oral traditions regarding events in the early 20th century in which two boys teased ravens. They were warned that they should stop, that “those ravens are powerful animals” (PH). They did not relent and died later that year, being buried on the Charlie Trefon Native allotment, near Chulitna Bay—an event attributed to the act of disrespect. Interviewees also repeated a similar story from recent times of a boy who shot a seagull for no reason. He later experienced misfortunes for this show of disrespect.

In this light, the killing and consumption of game species traditionally creates cosmological tensions and unresolved debts. In spite of religious conversion and considerable social change, Dena'ina subsistence harvesters still bear the indelible imprint of these values on their ongoing beliefs and practices relating to the hunt. Interviewees complain that when outsiders document hunting and other subsistence tasks, they too often forget “the deeper meaning..., how to take care of the animal. Like the spirit of the animal and stuff like that” (KE). These beliefs are said to be guided by ecological knowledge and understandings of patterns of cause and effect in game populations and the landscapes they inhabit—all ensuring long-term stability and survival. To this day, tribal members assert that traditional notions of respect have sustained the ancestors and continue to bring life forward in the landscape: It is “probably the reason why [the animals] keep showing up” (FS). And, “You can't say this enough..., there's a reason we survived here as long as we have...because we knew. You know, we understood it” (RK).

Interviewees attest that hunters still show these respects in myriad ways, by not killing wantonly or overharvesting, by minimizing the suffering of animals, by showing respects ritually when something is killed, by cleaning the animal respectfully, and by sharing the meat. As Fawn Silas explains, “they respected the land. They didn't just take. They respected the animals. You don't just go and kill something just to kill. That's the way I've always seen it” (FS). People were said to treat the animals like neighbors “because we are in their backyard too, as much as they're in our backyard” (FS).

Speaking softly and calmly is said to be a traditional value used when fishing or hunting. These traditional ethics are both immediately utilitarian—reducing the chance that fish or game will be startled—and indicative of deeper layers of respect. Ethics like: “don't holler at night when it's dark...when you're fishing” (GE). Hunters are even traditionally instructed to speak well of the game, especially prior to and during the hunt, to not say insulting things or “tease” in any way. Similarly, when harvesting fish at Fish Camp, in particular, people are said to avoid speaking of bears, or to take extra precautions to only speak of bears respectfully. This is said to augment the respect shown to bears and to reduce the chances of unpleasant encounters at fishing stations. People also observe certain rituals to show respect for the bear but also the unique power of bears—both during fishing or when a brown bear is killed.¹⁷⁹



Brown Bear. NPS PHOTO / K. JALONE.

As one way to show respect, hunters attest that they should never harm or injure an animal unnecessarily. For this reason, it is said that a traditional hunter seeks to kill as humanely as possible, with a clean kill shot, avoiding the injury or pursuit of the animal in a way that causes it to suffer. “When you kill something you like call the animals you kill. You're supposed to kill it real fast, don't let it suffer” (CD). When people do not succeed at this goal, they do not forget about it, and seem to make amends: “I feel bad when I lose something, like for instance a bird. I'll hit one sometimes and not always get a clean shot on it. And I lost a couple geese that way and I always get mad at myself because...I didn't want him to suffer” (RK). This practice is in hunters' best interest for other reasons, as well: “I don't like to shoot around, lose bullets” (CD). This standard requires that even preparation for the hunt should be done in a careful and thoughtful manner. In fact, young people are admonished to practice the core skills such as shooting so these things are done well, so that the shot is precise and skilled, and will neither scare game nor waste ammunition. When traditional hunters see people shooting haphazardly, it is seen not only as disrespectful, but perilous. As oral tradition attests, adverse effects of disrespectful practices can come back not only upon incautious hunters, who startles and even offends game, but upon the community as a whole, for reasons material or otherwise.¹⁸⁰

Hunters also attest that a key aspect of respect relating to the hunt involves not overharvesting. This point is made by many hunters, but is so commonly understood, so fundamental and obvious, that it sometimes gets short shrift in summaries of traditional harvest values:

“They’ve come a long ways, not just like birds but salmon. If you think about the trip they make, it’s a long, long [way]. You know we as a People, we don’t like to take more than we have to. And we know how much we need.... Everyone around here doesn’t like to waste. We use what we can and what we have... that’s what was passed on. I never thought of why, it was just what they taught us you know. It’s like natural for us. You don’t have to think about why we do it, it’s just something we have to do” (RK).¹⁸¹

This respect is also manifested in the Dena’ina practice of avoiding hunting of juvenile animals, or animals raising offspring:

“You can’t get some of the animals [whenever you want]. You can’t get porcupine in the spring because they’re carrying babies. The moose are carrying babies in the spring. The boundary is just following their schedules” (FS).

Interviewees attest that though it be convenient for the hunter to seek game at these times, they should refrain—for reasons practical as well as respectful.¹⁸²

Once an animal has been killed, hunters show respects in further ways. For example, modern subsistence harvesters continue to offer statements of thanks, even prayers, at hunting and fishing sites, to demonstrate respect for game and the Creator. “When you do that you’re showing respect and that’s going to help—the elders say it helps bring the animals back.... If you respect them they will stay here” (RK). This is done at Fish Camp, as discussed later in this report, and this place remains an epicenter of such rituals as they relate to fish. Yet the rituals also take place across the landscape, especially but not exclusively along trails and waterways where subsistence hunters take game:

“When you might get some kind of animal, I like to give thanks to it because, especially like ducks and geese.... They flew a long, long way to be here and you know we’ve got to respect that. They flew a long ways just to be up here and we have a chance to get them. We can’t be disrespecting stuff that travels that far...and the moose...I mean every big game like moose or kill that I ever got...I always give thanks for it because you know, without it we wouldn’t have anything” (RK).

As part of this practice, small offerings are sometimes left at kill sites, or even in places where people gather plants or other materials for personal use. Traditionally, this was considered mandatory: “if you killed something, you had to



Migrating sockeye salmon

NPS PHOTO / D. YOUNG.

leave something behind [to show respect]" (CD). The principal hunters of Nondalton often continue these practices today—seen as marking a mutually-sustaining relationship with game and with Creator, ensuring the ongoing success of the hunt. While offerings such as feathers and wooden objects have been left historically, in recent times one might see matches, safety pins, coins, nails, string, or other items of minor value. The small sacrifice of an object manifests the respect shown to the living being that gives its life, and to the Creator or other spiritual force that offered and animated the being for human use.

Even the care of the carcass is part of maintaining a respectful relationships with game species. Hunting caribou and not using all of the meat, or giving the meat exclusively to dogs, is considered disrespectful, compounding the effects of reckless and disrespectful hunting. Thus, the butchering of animals is also done cleanly and almost completely, so that every part of the animal is used with nothing wasted. Butchering must be done cautiously and carefully to minimize waste:

// "When you clean the animal too, you know like most of the time you'll give your meat away and stuff. And when you skin out your animal, don't try to be sloppy and get dirt all over on it, or you skin it out so some of the hair wouldn't get on the animal... Try to skin real clean so... when you give your meat away it'll be nice and clean" (CD).

Abbreviated first fish ceremonies are still observed at Fish Camp that include similar observances: "You have to cut your fish the right way. You have to take care of your fish the right way. If we don't they might not come back" (GE). This is seen not as a practicality, but rather a show of respect for the animal that helps maintain the integrity of relationship between hunter and game.

The complete use of an animal's remains is said to be done, in part, to respect the animal—to demonstrate the absence of wastefulness, and to reduce the need for killing additional animals to meet basic material needs. Of this practice of non-wastefulness, Randy Kakaruk comments:

// "A lot of our kill, you won't find nothing—hardly anything left on it... if we were still using the hides as much as we used to, you wouldn't find any of our kills anywhere.... Everything had a purpose.... They used to use the stomach lining...for like [a] water bag or something.... Everything was used for something" (RK).

Only part of the gut of the caribou is traditionally left behind, for example. The rawhide is made into items such as snowshoes or dogsled gear. Even the hoof was traditionally boiled and the insides eaten, and the head cooked and eaten as well. The bones of moose and caribou are also utilized "because there's marrow in there you know. It is [good for you]. Now when you boil the bones it gives off another flavor to the broth and everything. Oh yeah. [I say] 'Send me over the bones next time you don't want them...we'll take them!'" (RK). Boats are traditionally made from the hides of moose fitted around wooden structures. For this kind of boat construction, willow crossbars are gathered in the spring while flexible, and fitted into place, with the entire apparatus fitted with wooden bow and stern—a practice still carried out by Dena'ina craftsmen like Butch Hobson.

Agnes Cusma spoke of a moose hunting trip to Middle Fork, during which her father served as hunting guide. While the non-Native hunter was only interested in keeping the head and meat of the animal, her father found use for the entire animal:

// "When he [the non-Native hunter] killed it, they skinned it for him and fixed the head for him the way he wanted it: the horns on there and everything... They save it, they didn't throw it away. And they took the nose off and the tongue and...the eyes.... That meat, that moose that he killed, they didn't leave nothing there... They can't... throw nothing away. He said, ...'We can fix that skin and bring it home. Nobody throws skin away, a long time ago, because they use it for [a] certain time. It's good for making ropes.... All the skin was thin. They use it for rope and soles [for shoes]—tan it, smoke..." (AC 1998).



Butch Hobson, a Dena'ina elder, traditional craftsman, and Chulitna Bay allotment owner, who contributed extensively to the current study. DOUGLAS DEUR PHOTO.

Mary Hobson made the same observations, saying that no species was consumed wastefully:

// "Grouse, lynx, everything.... We didn't throw away nothing. We kill something, we have to skin it, inside stomach—everything. Stomach, we got to clean that too. We have to eat that too. Clean it good, everything. We didn't throw away even feet. We didn't throw away feet, bones. After we're finished, everything, same with that ribs, that bone, everything. What the bone is we cook it. We save it and save it then pile up that bone. We wouldn't throw it away.... Chop it really hard and put in a can and boil it, boil it for a long time and cover that up. Then take the tallow on top of it..." (MH 1998).

Traditionally, with both fish and game, any unused remains are carefully placed back in the appropriate place—said to be the habitat from which the creature was taken. This is done with most game species, including moose, caribou, beaver, birds, and other species. Fawn Silas observes,



Pete Trefon beaver hunting in the mid-1930s. PHOTOGRAPH COURTESY OF HELENA SEVERSON MOSES, H-594.

“You’re not eating the moose bones, you take it and give back to the land where you got it from. You don’t put them in the trash can, or the lake. It didn’t come from the lake, it came from the land. So the birds, like the waterfowl birds, then you take the bones and you put them back into the water where you got them” (FS).

Similarly, Clarence Delkettie reports: “beavers: you’re not supposed to throw bones on land; you’re supposed to throw the beaver bones back into the water. And moose bones and stuff don’t throw in water, leave it on the land” (CD). The same reasoning applies to fish remains taken within the study area.

“Same thing with fish...that’s how it is: you want to dispose of what you’re not going to use—where you got it from.... It’s like respect, you know. It’s a living thing. And the way I see it is because they deserve a little, just as much as we do, and we’re taking their life. We got to show respect and give thanks for that” (RK).

Likewise, Fawn Silas notes,

“Even if its busy in springtime, we have...our fish. You don’t take that and throw it into the landfill. You take that and put it back in the water. Because now the rest of the other fish is going to go over and eat off of that fish that you put in there. So you’re still giving back to the land and where it came from—the water. You’re just showing respect, for future fish to keep coming back” (FS).

These practices likely have ecological implications worthy of further investigation, perhaps supporting the integrity of target species (Thornton, Deur and Kitka 2016).

Demonstrating a parallel form of respect, hunters sometimes leave out a small amount of the kill for other species, such as ravens and eagles, birds said to develop a special relationship with hunters. These birds follow hunters so that they can take part in the scavenging of the kill.¹⁸³

Balance & Redistribution Within the Dena’ina Community

Beyond obligations to game species, inland Dena’ina have interwoven, reciprocal obligations to each other—between households and generations—that serve to sustain both Dena’ina lands and society. It is widely reported that hunters must always “give some meat away” to family, to elderly or ill people in the community, and to others in need. This reflects general values concerning community responsibility for those who cannot help themselves. As Clarence Delkettie recalls of these traditional teachings,

“They [said they] should respect the elders. My mom and dad told me when I was a kid you know, like ‘Go help your elders out.’ They liked me to get water for them or split their wood. Don’t even ask for no payment, just help them and ask them if they need any help...even if you’re not an elder, you’re supposed to help someone...if somebody’s trying to do something like build a cabin or...whatever, you know, give them a hand” (CD).

Similarly, Agnes Cusma described how she was trained to look after the needs of elders,¹⁸⁴ and how food is traditionally shared with anyone who expresses a need, saying, “They share a lot. Even if somebody went out hunting, and the people that didn’t go out, they share with them when they bring the meat in...; fish, same thing” (AC 1998).

Sharing the products of a hunt is described as a key Dena’ina cultural value—bringing communities together socially and culturally while also providing for their material needs:

“I remember my Uncle...was telling this story; he said it was like a picnic for everybody. When they got a moose...over here, and he said they announce it on the radio and a bunch of people showed up and it was just like a picnic, really. You don’t ever see that anymore. And he said they were going to get moose and then they got one and then they let the people there, you know, skin; they kept going up the lake and they got another one. And he said that was a long time ago... He said it was like a community thing. He said they just made an announcement and people showed up, and they made a fire” (RK).

Sharing has taken on new importance with Nondalton residents required to work outside the community during salmon harvest or at times of other peak subsistence activities (Holen 2009). Traditionally, those who have surplus subsistence goods are expected to share with those who do not have enough.¹⁸⁵

In the past, the second chiefs of each village monitored the welfare of each household, making sure supplies were adequate. These customs are rooted in very old Dena’ina traditions, in which men—especially those in leadership roles—oversaw systematic assessments of community needs and orchestrated sharing accordingly. Mary Hobson remembers that the “second chief” held this role long ago:

“Second chief had to walk around the village, [finding out] who got no-too much fish and food in the wintertime. Got lots of kids. Have to help them get wood... Check them and enough wood for kids. And the second chief have to [say]: ‘This guy got no food.’ The whole village got donations and give food, in old villages. That’s the way in Lime Village too, only three, four houses” (MH 1998).

Historically, potlatches directed by such leaders served as important venues for the organized sharing of game and other goods between individuals and larger social groups—not only redistributing resources to those in need, but also maintaining social connections. As elders have explained it, “Subsistence foods are an essential part of social and ceremonial events, such as potlatch feasts, which symbolize intense connection between villagers and the wild resources they depend on.”¹⁸⁶ Weddings, funerals, Slavi, and late winter carnivals have all served as such venues as well.

Sharing occurs not only between households within a village, but also between villages—such as between residents of Nondalton and Lime Village.¹⁸⁷ It is important to recognize that these obligations traditionally extend to the ancestors, including dead ancestors. In a ritual tradition distantly connected to other “offerings” mentioned here, food offerings are sometimes made to ancestors in campfires and other open flames. These are typically traditional foods, including salmon or meat obtained in the course of subsistence harvests to sustain living members of the community. This practice continues in some settings today.

With these traditions of sharing the harvest, certain men are responsible for the principal hunting, upholding obligations to share the meat with the larger community. Because of this practice, a small proportion of men in a community fulfill a large proportion of the total subsistence hunting requirement for the community: “there’s like the usual people that goes hunting...I don’t want to say that there’s not as many people doing it anymore. It just seems like they don’t get out as much as some of us do. It’s like the same bunch of people that go” (RK). For this reason, individual harvesters often take more than what they personally need—“it’s not as much as it used to be but like a lot of hunters around here, they like to make sure the elders get some. And I’m cool with that. To me, that’s how it should be” (RK). Obligations to share meat with the entire village has sometimes made it difficult to adhere to the letter of subsistence regulations imposed by outside agencies, which demand limits based on the presumption of single-household hunters:



Dena’ina chiefs such as Zachar Evanoff, shown here in 1921, have traditionally overseen the sharing of resource wealth within villages to ensure that less fortunate or mobile members of the community have food and firewood.

PHOTOGRAPH COURTESY OF SANDRA ORRIS, H-764.

“Even these younger guys are on there. They don’t go over and kill whatever they want. They kill what they see and bring it back and redistribute it to everybody...my kid, plus all his friends, they used to go with us, go with me out hunting. And we would say just take whatever you need” (GA).¹⁸⁸

Values around sharing also apply to fish, plants, and all other subsistence resources—as described elsewhere in this report. At Fish Camp, for example, certain families “set a net out there in wintertime and they usually make an announcement when they got a good haul there,” inviting people to come share in the harvest (RK). Long ago, these customs of sharing, combined with the richness of the land, made for little genuine hunger or poverty. It is commonly said that people traditionally “didn’t feel poor,” even if they did not have money (GE). June Tracy explains this inland Dena’ina sense of security—measured not in dollars, but in resources and a community that shares resources internally:

“You know, you’re going to always be poor in the city... Where, out here, we’re rich. We may be economically poor, but we’re rich in our culture and our ways of life... We don’t worry about homelessness. We don’t worry about starving, you know. So, that’s unheard of out here. We have a great abundance of everything. To survive, the only thing we’ve got to do is work to get it on our table. It’s a good tired. You go to bed at night knowing that you’re going to have something to eat tomorrow or for the winter...” (JT).

In this sense, Dena’ina “wealth” is difficult to quantify using conventional economic measures.

For a young person, practices of hunting and sharing are traditionally understood to be “investments” in the future, made in a community that will eventually return the favor. As Clarence Delkettie explains,

“If I ever get to be an old man in my eighties and nineties [I will be fed], if I ever live that long. I don’t know how it would be if there are no hunters around here to provide for me, because I ain’t going to be able to go out there and get it. And if these guys around here couldn’t hunt and trap and do whatever, I guess we’ll be stuck with nothing” (CD).

Because of the balance of hunting, sharing, and depending on others, and the cultural values associated with these practices, the erosion of hunting access, knowledge, and of the values themselves, erodes the social order in many ways. Among these disruptions is the nullifying of community debts to elders who long ago “invested” in their future, as described above.

In order for the lands, resources, and culture of the Dena’ina world to survive, then, people must recognize and honor their obligations on many cultural ledgers—obligations to the elders and the rest of the community, obligations regarding food redistribution, obligations to the children and future generations with the sharing of resource knowledge and ethics, and obligations to the game through myriad demonstrations of respect. These cultural practices are fundamentally connected.

Traditional Choreographies of Inland Dena’ina Subsistence

Big game mammals like moose and caribou, and the massive summer and fall runs of sockeye salmon are still the mainstay of Dena’ina diets, as well as the main motivation for seasonal mobility. As has often been noted,

“Moose and caribou are particularly important wildlife resources to the people of Nondalton. ...[O]nly salmon provided more pounds of protein to Nondalton residents than did moose or caribou. Nondalton residents view moose and caribou as large animals which can potentially provide households with a large proportion of the food they need, in the form of high quality meat, with relatively low expenditures in time and money.”¹⁸⁹

Especially in past times, Dena’ina people followed cyclical rounds of annual subsistence—linked especially though not exclusively to culturally keystone species. The variable climate and variegated natural environment required a high degree of mobility, with families living in villages in the wintertime but dispersing throughout the remainder of the year to a constellation of seasonal camps and resource harvest areas. Trapping, hunting (big and small game), fishing (salmon and freshwater fish), and gathering are all done in parallel at each camp, but additionally, while traveling between camps during each season. One key to success in the Dena’ina annual subsistence cycle is the ability to harvest multiple resources in each location: fishing, hunting, and gathering during each part of the year. Only rarely was there a harvest site linked solely to a single resource. In spite of year-round occupation of villages, this pattern persisted into modern times, with families fanning out to traditional subsistence sites through much of the year “We do everything—fishing and hunting—year round,”¹⁹⁰ moving in accordance with the availability of fish, game, and other resources. Interviewees note that even their traditional concepts and terms for time centered on the natural cycles of plants, fish, and animals:

“Our people worked with the season. It was—everything had a time limit and you know we worked with what we had. That’s why when you hear the fish is coming, people’s on it because they know it’s a window of—that’s our opportunity to get what we have when we need it. Same thing

with berries. When they're ripe you have to go get them, otherwise they're going to start going bad, as soon as a month or so" (RK).

A clear pattern directs the cycles of movement each year, impacted by changes in weather and the localized availability of resources. While conditions vary year to year, and the exact timing of certain activities varies, the Dena'ina choreography across the study area's landscape is relatively set.¹⁹¹ Traditionally, the cycle began and ended in the winter village. When temperatures fell, generally by the end of October, many Dena'ina historically returned to winter village sites from autumn hunting camps. As Ellanna and Balluta note, "The severity of temperatures at this time of year was the major determinant of when the inland Dena'ina decided to leave fall fish camp by boat and return to their home community."¹⁹² So too, elders like Butch Hobson noted signals in the landscape that indicated it was time to move—the migration of birds southward, or the fireweed blooms coming to an end. Traditionally, winter has been a time to gather in larger social groups at a centralized village—socializing, storytelling and participating in ceremonial events, reconnecting with family, trading and restocking supplies, making tools, baskets and other items, and enjoying a seasonal reprieve from treks between subsistence sites.

Winter villages have continued to function as places where the Dena'ina trade goods and restock supplies, and as places where people commune, reaffirm cultural practices, hold ceremonies such as funerals and weddings, and share stories, food, and information.¹⁹³ Additionally, wintertime is a season for visiting and receiving visitors. Inland Dena'ina families traditionally traveled by sled. Now they often travel by snowmobile, navigating frozen waterways and snow blanketed landscapes to visit family at other villages. While these patterns of travel were well established before the arrival of missionaries, the introduction of the Russian Orthodox tradition of 'Slavi' (also "Russian Christmas" or Russian Orthodox Christmas) formalized winter travel during the first and second weeks of January.¹⁹⁴ Yet traditional resource harvesting activities continue alongside these introduced traditions, with specialized moose and caribou hunts continuing, and winter trapping and hunting of small mammals also common.

Fishing continues in the wintertime as well, albeit on a much smaller scale than at other times of year. The availability of freshwater fish becomes limited in the winter, though many Dena'ina jig for fish through the ice at locations near the winter village—still a common practice among Nondalton residents. As Nancy Delkettie says, "We fish a lot through the ice [to catch Pike, whitefish, burbot/ling cod]. Everybody does, the whole village does, you know" (ND).

By the end of winter, when fall-harvested provisions of salmon and big game can sometimes run low, the Dena'ina people traditionally prepare to move into spring camps—many being historically situated within the study area. This occurs as soon as ice-breakup begins, often in the month of April. At one time, the movement was timed to the rise in the watertable of Lake Clark and other waterways, which caused increased dampness in traditional semi-subterranean houses.¹⁹⁵ Travel traditionally expands along rivers and streams using boats and, historically, canoes. In the springtime, fishing intensifies, while trapping, and the hunting of moose, caribou, and small game continue from camps on the lower Chulitna River and beyond. Albert Wassillie describes the annual exodus from the winter village at Nondalton to spring camps at Chulitna Bay and the flats on the lower river:

“Every spring people would take off, the whole village: nobody in the village. ...They have camps of their own in different places. All the people from here would go to Chulitna Flat, all the way up to the head of the lake: all the way up the river they have their camps.”¹⁹⁶

From the third week of April until mid-June, Gabriel Trefon-Balluta would take his family from Old Nondalton to *Nikugh Vena* (Nicovena Lake) for spring camp where they trapped beaver and muskrat, fished for whitefish and pike, and hunted



Chulitna Bay, a traditional center of subsistence and ceremonial life in the Lake Clark Basin. KAREN EVANOFF PHOTO.

ducks. They would then travel down the Chulitna River in a moosehide canoe to *Yusdi Ghuyiq* (Indian Point).¹⁹⁷ Pete Kotelash recalls that he and his father Gillie were trapping beaver and muskrat from the first of April until mid-June, fishing for whitefish and pike and hunting for moose while "camped at *Ch'alitnu Hdakaq'*...in the same general area as did other Old Nondalton families. Other families camped along the full extent of the Chulitna River."¹⁹⁸ Though these were regular campsites, used most years, springtime involved movement between multiple camps, or the use of specific camps appropriate to the distribution of resources in that year. For example, when Mary Hobson was a girl, her family stayed at Shagelagh in the spring. Yet they also hunted, fished, and sometimes camped at many other places: *Hek'dichen Vena*, *Qiz'an Vena* ('something under the ground lake'), *Qedeq Vena* ('upper lake'), *Vatukunchila Vena* ('clear water lake'), *Vendash Vena* ('shallows lake lake'), as well as *Shagela Vena* ('trout lake') (MH 1986).

Traditionally, as the summer approached, families began to position themselves for the arrival of salmon. Some spring camps also served as summer fishing stations. Yet in other cases families relocated to key locations that served primarily as fish camps—Indian Point and Nondalton Fish Camp both being keystone salmon camps historically. Once Dena'ina families arrive at camp, repairs are made to permanent and semi-permanent structures such as fish racks and steam baths. Families usually reside in tents, but some return to cabins. When the salmon arrive, the real work begins. Fish are caught using nets hauled from the water each day, and processed according to their end product: filleted and dried, canned or



Salmon drying on fish racks at Nondalton Fish Camp, before being brought into the smokehouse. LIZA RUPP PHOTO.

eaten fresh—a process discussed in greater detail below. This salmon harvest continues through July, and sometimes August.¹⁹⁹ Albert Wassallie described how the Dena'ina traveled to Indian Point to set up fish camp and prepared to harvest the extensive salmon runs constituting the main source of fall subsistence from July to August:

“When the springtime was over and the people would come down, they make this crude boat they call [Negeday]. It's a great big old crude thing. ...They would load their belongings, dogs. Some guys they would have three, four canoes alongside of it. ... They all come down, they come down to that Indian Point...at Long Point. They would start making camp there. Everybody, before June month, they had to come down here and put up fish, get ready to put up fish. So they'd start making camp all the way along that point...” (AW 1985).

Concurrent with summertime fishing, families continue to hunt, trap, and harvest berries beginning to appear near camps.

Places where people have converged for the summer salmon harvests are among the richest and most culturally significant places in inland Dena'ina territory. As suggested elsewhere, Chulitna Bay is widely seen as a place of unique cultural significance due to its importance as a center of settlement and subsistence—containing rich resources that can be harvested as people move in for salmon runs. Elders mention they are able to obtain a uniquely diverse range of resources there: moose, various birds (geese, ducks, swan, ptarmigan, spruce hen, snipe and others), muskrat, beaver,

wolf, wolverine, lynx, marten, rabbits, burbot, pike, berries, and other resources. As Butch Hobson says, “that place is key: if you need food to survive that's where you go! A lot of Dena'ina people come up and use that bay in springtime.” The area around Turner Bay²⁰⁰ is said to be “the main place to get birds” for much of the Nondalton community. The area also has freshwater sources, including springs, that are pure and clean (though the Chulitna River water is relatively turbid and not usually consumed). For these reasons, the Chulitna Bay area is sometimes described as having a longstanding and special connection to the Dena'ina people that renders it “sacred.” Randy Kakaruk summarizes that sentiment:

“That bay there. I'd say you could almost consider that whole place as a sacred spot for us because there's so much food and everything we get from there.... It's like year-round, it provides something year-round... it helped our people out quite a bit there because if you think when we were in Kijik they would have had to come all the way down here. It was—everything was provided right there...it's what helped save our people. It's what made us thrive. The way I see it, it's our life source. To me that's what we consider sacred. And you could pretty much say the whole area is because it continuously provides for us and it's our life source.... Like I was saying, it was no accident that our people survived here as long as they did. It's because they knew what we had here” (RK).

The Dena'ina community's selection of allotments around this bay, and the continued use of these allotments by Nondalton residents, is an enduring testament to the area's importance. Nondalton Fish Camp is no less important, for similar reasons—and is treated in a standalone section of this report.

As soon as the salmon runs begin to decline at summer fishing camps, many families mobilize to fall camps, where they fish for redfish (sockeye salmon) at a later stage of the spawning cycle. By this time, berry picking is close to its peak, and access to freshwater fishing is at its best. Thus as Dena'ina families traveled toward fall fish camps traditionally, they continued to hunt for moose, caribou and bear, to fish for freshwater fish, and to gather plants and berries along the way. As observed by Behnke, “Nondalton residents also look for moose, caribou, and bear when traveling by boat to fall fish camps and berry picking locations on Lake Clark and Chulitna Bay.”²⁰¹ In recent generations, this type of migration has taken many Nondalton residents from Nondalton Fish Camp to Kijik River, with frequent stops for subsistence resources along shorelines in between.

As September approaches, many families traditionally head into the mountains or interior plateaus to set up fall hunting camps where they trap furbearing mammals, hunt for big game (moose and caribou especially), pick berries, hunt waterfowl and groundhog, and do many other tasks. These camps have historically seen a flurry of activity:

“While in late fall and early winter camps, women and older girls snared rabbits; hunted grouse with 22 caliber rifles; fished through the ice for grayling, whitefish, lake trout, and pike by jigging; gathered additional wood and hauled fresh water for the camp; and sewed

clothing. Most of the game that they harvested was eaten fresh—an important addition to their diet of smoked salmon, dried meat and the remains of game from the fall hunting of September....”²⁰²

Mountains such as Groundhog Mountain within the study area were considered highly significant in the seasonal round, and this was seen in the summer and fall seasons especially. Due to the importance of resources found on mountains, it is said “almost all of the mountains had hiking trails going up them,” allowing access from major trail routes below (BH). These were commonly marked with blazes along the major trail routes. Elders point out that, in times of scarcity caused by temporary declines in caribou, moose, or salmon, the use of upland resources intensified significantly—involving not only intensified hunting of ground squirrel, but increased reliance on mountain goat, bears, and other animals found at higher elevations. In periods of scarcity, people established high-elevation camps and simply kept hunting in the mountains until they had enough meat to justify a return trek home. (While there was little mountain goat in the study area, interviewees note they could see mountain goat on adjacent mountains as they traveled in the area, such as on mountains east of Lake Clark. Summer and fall hunting expeditions were launched from places within the study area, based on these sightings.)

With the arrival of late fall, people traditionally prepare to return to the winter village—closing down camps, rounding out their subsistence supply, storing summer and fall hunting gear, and generally preparing for quieter times. Andrew Balluta’ recalled how the end of the fall trapping season marked the transition to winter village life. He recounted that at the end of October, “[m]y family and father’s brothers and sister traveled by boat about four miles southwest of Tuk’eleh to Chaq’ah Tugget, a bay on Lake Clark where my dad had a trapping cabin at that time and my mom has a home today. ... This is where men and women prepared for fall and early winter trapping.”²⁰³ So too, he remembered the return to winter villages as a time to trade the many furs and beaver pelts gathered during fall trapping for commercial supplies to last the winter:

“When we got back to the village, my dad put his plank boat in the water and all the men left for Hans Severson’s trading post at Iliamna with their winter furs and beaver pelts to trade for flour, sugar, lard, coffee, tea, ammunition, gasoline (for the outboard motors), bolts of cloth for my mother to sew into pants and shirts for us, and occasionally some commercially made clothing.”²⁰⁴

In this way, families prepared for the winter ahead.

These patterns, though somewhat distinctive to each part of traditional inland Dena’ina territory, played out in similar ways throughout the larger Dena’ina world. Mary Hobson, for example, recalled that during the months of September and October, she and her family traveled back to Qeghnilen in a boat via the Stony River, landing at Vatsilyaxi, ‘the one that is dreamt of river,’ with the fall fish they had harvested. In November, they then packed up again and headed up river into the mountains for fall hunting. They would load up their boat and then “land it—boat—and we land over here and have to pack way over...the mountains” (MH 1986). From this point, they returned to Qeghnilen for Russian Christmas using sleighs. Soon enough, she recalled, the seasonal round would begin all over again.

Traditional Land & Resource Tenure

Traditional resource areas are not bounded physically on the landscape with fences or structures. Most are not even adequately mapped. Yet these territories are known to resource harvesters, and adaptable. They tend to be resource-specific, with boundaries changing to accommodate different harvest seasons. Though not codified in written form, they are honored in order to maintain respectful relationships both with fellow harvesters and harvested species. Describing this concept, Jack Hobson stated:

“Long ago there was boundaries between villages and stuff like that. We respected each other’s boundaries—only time they went outside the boundaries was when they were hunting and stuff... The animals don’t stay within your boundaries, you know. If you go in another group’s boundaries you have to respect it, get what you want and get out, you know. But there was always that inter-mingling” (JH).

Today, the Chulitna River, Sixmile Lake, and mountains west of Nondalton are especially viewed as the community’s core hunting territories, heavily utilized and traditionally claimed by families from Nondalton. In casual conversation, one often hears Nondalton residents refer to the hills around and including Groundhog Mountain as “our mountains.” But to understand the meanings of those values and sentiments, one must consider not only patterns of resource use, but traditional understandings of resource tenure.

Especially in areas revisited often, areas close to the village or along time-honored trails and camps, Dena’ina resource harvesters have traditionally maintained more or less exclusive rights to certain hunting, fishing, and trapping areas. As Butch Hobson explains, “In old times there wasn’t much overlap between peoples hunting and fishing territories... between villages or even families.... They all had their own places they went. And they all respected each other’s areas” (BH). These traditional resource territories are arguably conceptualized in two ways by inland Dena’ina families: as areas utilized by a community based on proximity to a village, and as areas used consistently by particular families or villages over many generations. These resource harvest areas are mutually agreed upon between communities, often verbally through formal and informal discussions of territorial usage and rights.²⁰⁵ “Long ago they had that unwritten rule between villages that they knew each other’s hunting areas and they wouldn’t just go there. It was an unwritten rule” (KE). Traditionally, it would be in bad form, even grounds for conflict, to harvest resources without permission in another community’s core resource territories. In this way, communities held a sort of “usufruct” tenure, in which they maintained first right of use, and required that this claim, as well as the resources within it, be “respected” in some manner by outside communities. Even arriving in another group’s traditional lands and acting disruptively, or being disrespectful toward game, was understood to undermine the integrity of the village community dependent on the resources for survival. Even in the absence of outright resource harvests, villagers had the right to expel interlopers.

Still, a village or family might grant permission to outside villages to access and utilize resources. Such permissions are especially granted to kin or close friends from other communities. If residents of one community desired access to another community’s harvest area, permission would be sought. For example, the Dena’ina from Pedro Bay and Old Iliamna, and Yup’ik people from Newhalen, are required to seek access before entering and harvesting within Nondalton harvest areas.²⁰⁶ Harvest boundaries known to be utilized by certain families operated under similar conditions. Andrew Balluta described the method by which trapping areas were negotiated, saying, “they’d come and they’d talk to one another and say how far do you, how far your trap line goes.... Then they’ll go just beyond the next kind of trap line” (AB 1986). Similarly, during the trapping season for spring beaver, muskrat, and otter, residents of Nondalton, Pedro Bay,

and Newhalen each have designated areas to which they return. Andrew Balluta described the configuration of these territories and reciprocal access rights between villages:

“What Nondalton village would do, like spring beaver hunting, muskrat hunting, otter hunting; Nondalton used to take Chulitna up to Long Lake, and they used to...have, like, Pedro Bay come over and they give them ground far as here, up to Nicovena, *Nikugh Vena*; that’s far as they give them land to trap. And they give Newhalen land from here on up, and they trap.”²⁰⁷

Gilly Jacko remembers that his grandfather held usufruct resource rights in the vicinity of *Lih Vena* (White Fish Lake), but would grant access to the area if asked. She explained, “Certain creeks like White Fish Lake [*Lih Vena*]—my grandpa owned the place and nobody come around. But if anybody ask him for permission [to use the place, he would grant it].”²⁰⁸ Occasionally in these situations, land users might reciprocate—gifting the *de facto* “landowner,” allowing that person to use their own lands in future times, or even sharing a part of the catch. By allowing for this kind of flexibility of access, Dena’ina people ensured that temporary resource scarcity in one location could be offset by access to other locations, reducing the specter of scarcity or the potential for localized overharvesting. These traditions also helped to maintain social and economic interconnections between Dena’ina families and communities that were mutually sustaining.

Similarly, trap lines set during the winter trapping season weave across the landscape in accordance with traditional community resource boundaries. A Nondalton trapper described how trappers from Newhalen, Iliamna, and Nondalton recognized and respected these boundaries when setting trap lines: “What they do, like Newhalen, they hardly go in anybody else’s trap line. ...Iliamna, hardly go down this way, they respect the others. Like over here, that’s Nondalton’s trap line, all the way from Mulchatna up to Telaquana. Like here’s Dutna Lake, they go far as there, all the way [to] Telaquana.”²⁰⁹ People traditionally know where those traplines are situated, and make efforts to avoid affecting other trapper’s lines. Interfering with another trapper’s lines would invite conflict, and would sometimes require repayment. These sites are maintained by the community members’ shared recognition of familial rights to specific locations.²¹⁰

Hunting and trapping areas can also be inherited, largely along paternal lines. Hunting and trapping routes, and fishing and camping sites, are constructed in areas previously used by a man’s father and grandfather, “a system of usufruct rights relating men to their fathers, sons, and brothers through time”; the rights are also extended to women who marry into those male lines.²¹¹ For example, Butch Hobson (Steve Hobson Jr.) has been one of the most active trappers and hunters in Nondalton, focusing especially on areas used by his father, such as *Nikugh Vena*, and trapping in the mountains in the vicinity of Nondalton (BH, MH 1986). Men typically learn the detailed information required to successfully navigate and use their territories by years of *de facto* “apprenticeship” with elder men in their families.²¹² George Alexie and other men see the lands on the east side of Sixmile Lake as an extension of their hunting territory in part because their fathers and grandfathers used the land. The opposite bank of Sixmile Lake from Nondalton was also a popular hunting area for some families:

“Right across the lake there. [My grandpa] was walking around over there hunting grouse...he had a .22, all he had was a .22. Came back, told my dad, ‘I killed a moose over there.’ He said, ‘Oh.’ So they went over there. With a .22, he killed a moose!” (GA).

The permeability of traditional resource boundaries differs based on resources harvested. In particular, boundaries around fishing campsites are often more rigid than those around hunting and trapping sites. Fish camps are located at prime spawning locations within close proximity of a village, and are discrete territories with little or no overlap with other village’s fishing sites.²¹³ Alternately, hunting and trapping territories, while distinct, are more permeable, as hunters traverse the landscape following the movement of game. Accordingly, June Tracy recalls how respect was paid in different areas:

“It was like if somebody had a fish camp, you respected it. If somebody had a trap line, you respected it. If somebody had a house down wherever they wanted they needed a house to stop by or, it was like, they put a cabin there, and everybody could use it. When you leave your camp you leave [it] the way you found it, you know, but leave it for the next person” (JT).

As with lands and resources, camps and cabins were often shared, provided a visitor respected the space and did not leave it degraded.

Many traditional harvest areas continue to be recognized and operational throughout the Chulitna River Basin, maintained by communities in Nondalton and the surrounding villages despite state and federal regulations introduced in recent history. Yet many Nondalton residents have expressed frustration about hunting regulations and the system of allotments and private property, and how these have clashed with the dynamism of traditional tenure. As Bill Trefon, Jr. commented, “Native allotments, private allotments, people that are buying properties. That’s one thing that really changed. Access to any place you want to go is not as free as it used to be” (BTJ). State and federal land ownership and regulation are often seen as undermining tribal sovereignty and the nuanced traditional tenure systems that allowed Dena’ina people to live successfully on the land for generations. Melvin Trefon comments on this change, which has happened within the living memory of most community elders:

“There’s significance from when I was growing up to now. When we were kids, all of this [land] as far as you can see was ours. There was no doubt about it. You could get on any mountain anywhere you want, there was no such thing as state and federal delineations, it was all Dena’ina land, every mountain top, every creek had a name, wherever we went there was a name for the place and it was home, every single little creek on the mountain up here where we had our camp, Groundhog [Mountain], squirrel camps [where] that creek that comes out, is where they like to make a camp at the top head of all the creeks on top the mountain. It was a really important area” (MT).

While traditional land ownership and tenure concepts were functional and adaptable, they are quickly going away—in no small part because a new system of ownership was imposed on the land. This system was applied to the landscape, asserting outsiders' claims without so much as a treaty, and without the involvement or consent of Dena'ina with traditional claims to the land and its resources. June Tracy described these difficulties:

“And I think that was one of the biggest things that we have a hard time understanding because we always thought that ...with the state and with the federal, and with everybody else saying well ‘we own this land, we own this land.’ And, to us Dena'ina's, nobody owned it. We did. This is our territory. This is where we hunt, this is where we gather, this is where we fish. Nowadays, you can't step on this guy's land, you can't step on that guys land, you can't do this, you can't do that” (JT).

Over time, combined with other social, economic and technological change, this development contributes to the decline of traditional systems of inland Dena'ina land tenure.

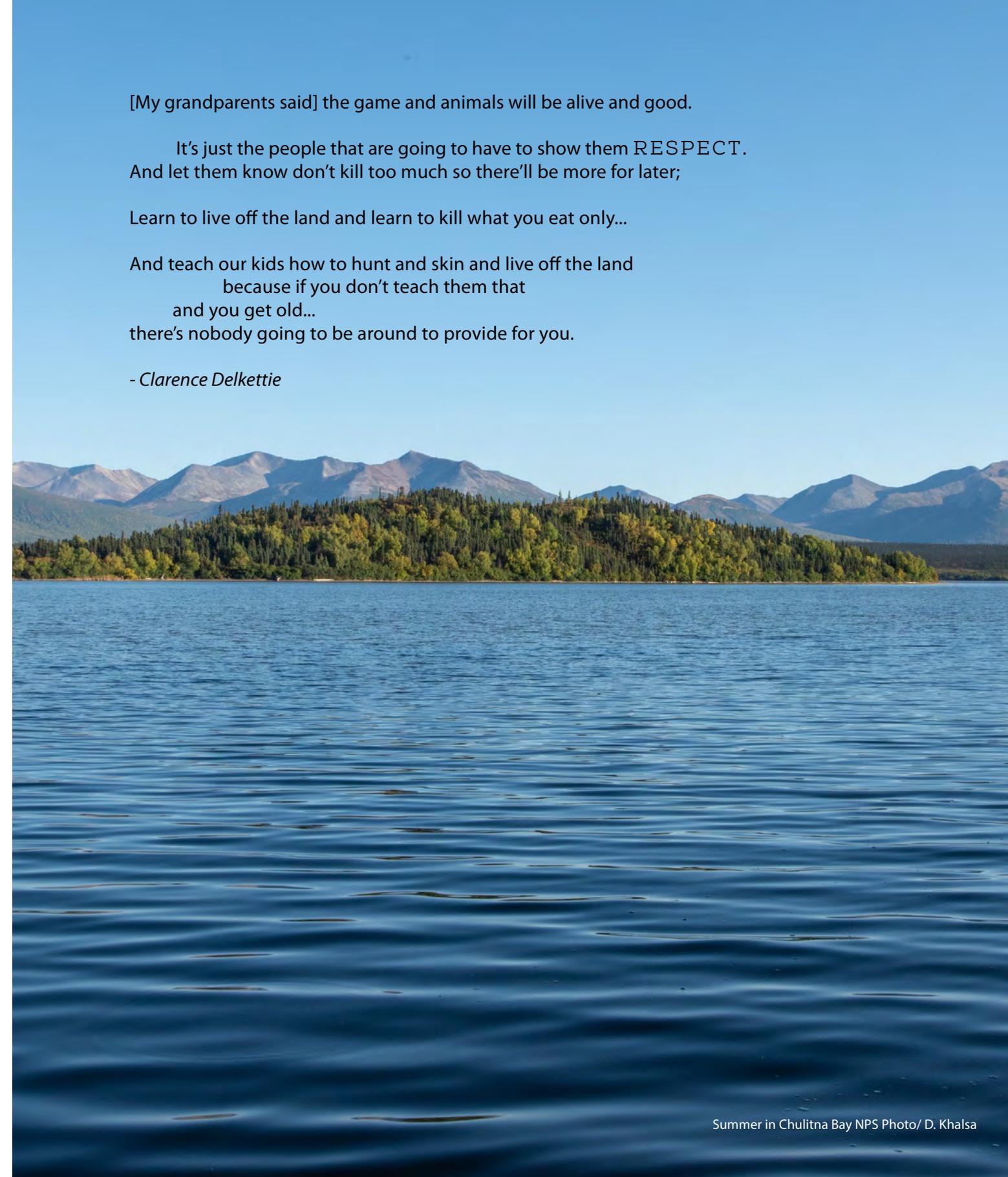
[My grandparents said] the game and animals will be alive and good.

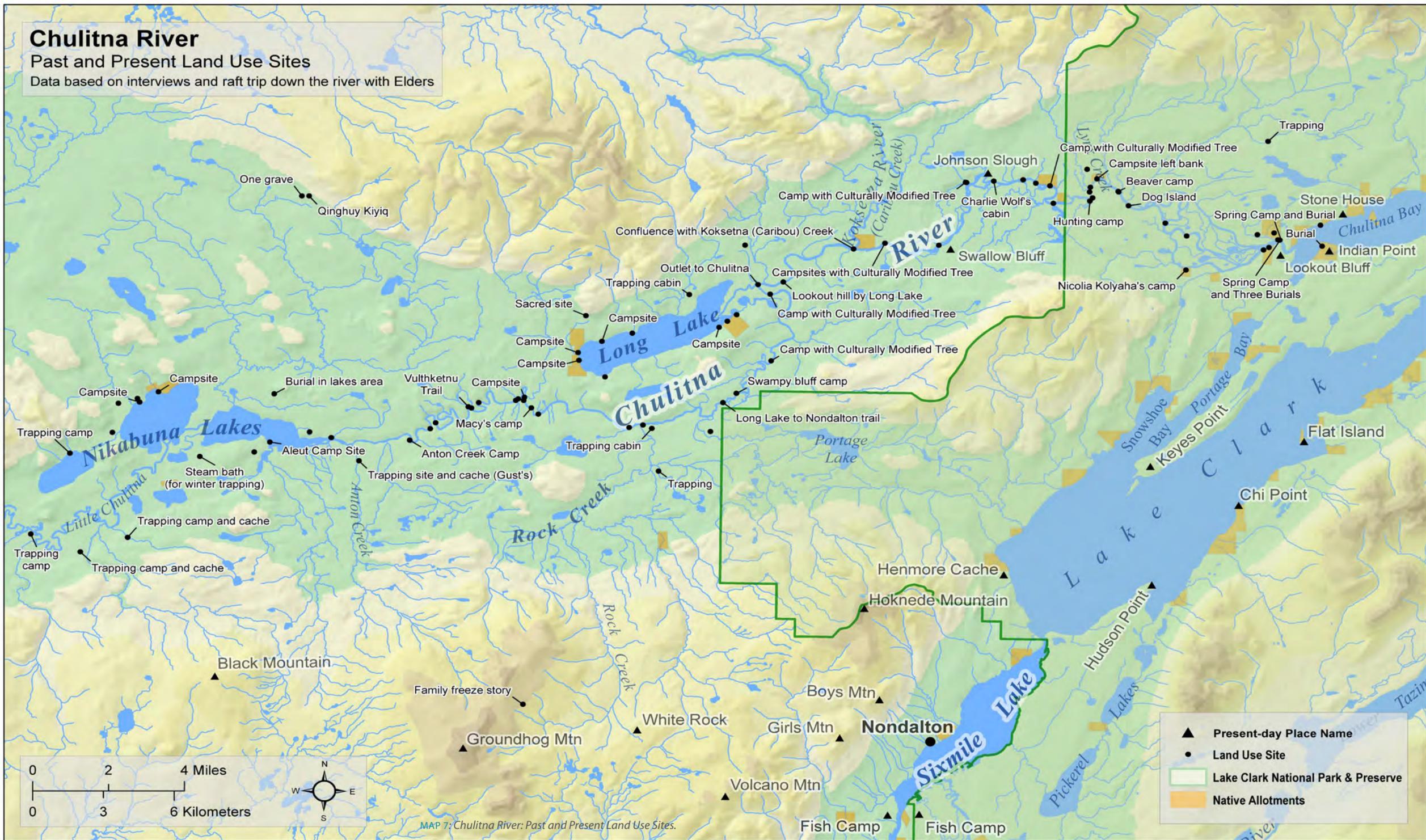
It's just the people that are going to have to show them RESPECT.
And let them know don't kill too much so there'll be more for later;

Learn to live off the land and learn to kill what you eat only...

And teach our kids how to hunt and skin and live off the land
because if you don't teach them that
and you get old...
there's nobody going to be around to provide for you.

- Clarence Delkettie





Hunting & Trapping in the Study Area: Key Species, Landscapes, & Knowledge

Inland Dena'ina Big Game Hunting

While salmon is a staple of inland Dena'ina diets, big game is also a cornerstone of traditional subsistence and cultural practice. Key to the diet are caribou and moose, and sometimes brown and black bear, as well as animals harvested largely outside the area such as Dall sheep. Nondalton residents attest that for the "people that live here [the hunting territory is] the only thing they have. We live to hunt" (GA). Among these species, caribou and moose stand alone. Both are considered independently in the pages that follow. These large animals may sometimes be elusive, but represent a remarkable payoff in terms of meat and other benefits, more than justifying the efforts of the hunt.²¹⁴ Nondalton residents are expert in caribou and moose-based cuisine and make it into myriad dishes to the exclusion of introduced foods.²¹⁵ In every Nondalton household, the meat is eaten fresh, but also preserved for consumption at a later time—a practice with a long history.²¹⁶

Inland Dena'ina subsistence hunting and trapping are essential to almost every domain of life. As Rick Delkettie attests, "Food, especially when it's from around here—you know, from the land. It's what our people eat. There's a reason why our people survived for as long as they have here. It's because they know how to use the land" (RK). The hides and other materials taken from hunted game are also essential to Dena'ina culture.²¹⁷ Some suggest that without access to subsistence game in particular, the entire community of Nondalton might cease to exist, lacking the food security and independence to continue. In this regard, the study area is pivotal. As the pages below suggest, much of today's inland Dena'ina subsistence activities occur primarily within the study area. The lands west and north of Nondalton are the epicenter of hunting for the entire community. Meanwhile, Chulitna River is arguably the single most important procurement area for moose and beaver—two of the most important resources in the interior Dena'ina world. "That's a major hunting ground, up the Chulitna River" (GE). "Chulitna's good [for] bear, caribou, moose. Yeah, I packed moose out of there before" (RD).

Modern use of core hunting areas is suggested in every subsistence study relating to our area of focus.²¹⁸ Hunters such as Melvin Trefon have identified the most important moose and caribou hunting grounds between Nicovena and Long Lake, including Groundhog area: "[W]e like to camp over there [at the end of Long Lake] just because you can wake up and see the game [moose and caribou] come out from these mountains here, when you camp out the end of long lake there" (MT). Jack Hobson also identified the Nicovena area as an important hunting area for a multitude of animals over many seasons, describing, "This area here, Nicovena, is very important to us; ...it's a heavily used subsistence area in the summer time when we do our moose hunting and caribou hunting and beaver, ducks in the fall" (JH).

These hunts are not only important for the food they provide, but for the maintenance of community cohesion and identity. People eagerly look forward to the arrival of key subsistence events—fishing at Fish Camp or the beginning of hunting season—and are animated by their arrival. The events are "like a biological clock." "We look forward to that. We're excited about it... you don't have to think about it, it's just like 'Yes, it's coming. We get to do this again, finally.'" (RK). As interviewees attest, Hunting and fishing are also among the main things that bring Dena'ina families together with a shared task and sense of common purpose: "My son lives in Anchorage but he'd come back every year to go hunting" (GA). Meat obtained through the hunt is also redistributed throughout the community.²¹⁹ In this way, hunting in the

study area is at the foundation of inland Dena'ina community, culture, and economy, and is essential for the continuity of Dena'ina life.

Traditionally, hunting was a group activity, involving entire families. Elders played a valuable role, not only as knowledge-holders, but as keepers of the camp. Often small bands hunted together and included an older man who stayed behind at camp to cook for the hunting party. Expertise in stalking animals was required of hunters, especially historically when hunters had to draw close to strike with a long spear or bow and arrow.²²⁰ Knowing the landscape was key to a successful hunting strategy. With more recent changes in technique and technology, hunting has become an increasingly solitary practice—something that one or two people can do independently—changing the overall social dimension of the practice.²²¹

Each of the hunting areas within inland Dena'ina territory was accompanied by largely permanent campsites, some of which are still used today. These are both functional spaces for camping, preparing for the hunt, and processing game, but are also social spaces where people gather and share experiences and knowledge between generations. For example, interviewees for the current project note that a major campsite along Chultina River is found at Johnson Slough. At one time this was an open and enormous campsite, cleared of vegetation to accommodate large numbers of travelers. The management of vegetation has largely ceased at this campsite, so that trees and shrubs encroach on its margins. But in past times, the camp included a sweat house used for ritual and everyday cleansing by Dena'ina people traveling through the area. Elders recall seeing this structure in use in the mid-20th century. A small trail led from the camp to the top of a small bluff immediately to the northeast; and even today, this bluff serves as a hunting lookout. The trees at the top of the bluff have been pruned and topped historically to keep the view open for hunters. Lithic debitage has been verbally reported on the bluff, attesting to the working of tools during hunting trips long ago. Such details are shared only as example, for camps of this type were widespread in the study area. Many are still in use today, and referenced as appropriate in the material that follows.

Moose Hunting in the Study Area

Though caribou are a mainstay of the Dena'ina diet, moose have long been significant as well. Moose hunting has become proportionally important over time, due to shifting migratory patterns of caribou away from, and moose closer to, settlements.²²² Recent studies report that Nondalton hunters now harvest more moose each year than any other community in the Bristol Bay or Iliamna region.²²³ And much of that moose is harvested along the Chulitna River, or in other parts of the study area. Chulitna River is still widely described as “the main place to get moose.” For some families, moose hunting on the Chulitna River riparian is still an annual event. Darren Cartikoff also says: “Lots of moose out in... all this: Chulitna River, Long Lake, Nicovena [Lakes].... I've been hunting all the way up to these three lakes and then, the other river, Lower Chulitna.... I've been quite a ways up there” (DC).

Unlike caribou, moose are relatively solitary animals that do not form herds, though they travel in family groups at times. They are generally found in forested or shrub habitats, especially in riparian and lakeshore environments. In spring and summer, moose can be found in calving areas, most often in open meadows and ponds, foraging on aquatic plants, grasses, sedges, and broad-leaf trees and shrubs.²²⁴ Beginning in late August or early September and into the fall, moose migrate to rutting areas in timberline regions to mate. Their diet changes to a combination of willow, aspen, poplar, and birch. In the winter, moose enter the valleys in search of food and shelter, making a home of alder and willow thickets.²²⁵

Written accounts of Dena'ina moose hunting in the study area appear early in the available written record—as in the record by Philip S. Smith, a surveyor who observed herds of moose near Gnat Creek during a USGS expedition through the Lake Clark-Central Kuskokwim region in 1914. He noted the connection between Nondalton hunters and the moose of the Chulitna River Basin, writing,



Bull moose browsing in a river. NPS PHOTO / J. MILLS.

“Signs of moose were particularly noticeable in the vicinity of the lakes in the valley of the stream tributary to Gnat Creek in which the camp of July 17 was situated.... The natives near Sixmile Lake had moose meat which they said was killed in the basin of the Chulitna.”²²⁶

In the past, as interviewees attest, moose were generally not found close to Nondalton or other Lake Clark Basin communities. Hunters from the Lake Clark region often traveled vast distances to seek these relatively elusive but highly valued game.²²⁷ Instead, moose were numerous in the river basins to the north and west, including the Telaquana Lake area and Mulchatna and Stony River basins—a phenomenon that contributed to the endurance of large Dena'ina villages in those areas historically.²²⁸ The shift of moose toward the Lake Clark region over time, especially in the early 20th



Cow moose grazes on fireweed. NPS PHOTO / E. WASSERMAN

century, was arguably one of many factors contributing to the eastward consolidation of inland Dena'ina villages over the last century, contributing to a dietary shift from caribou to a combination of caribou and moose.²²⁹ As Bill Trefon, Sr. of Nondalton described this history:

“In the past my dad used to tell me stories that there were no moose in this area: that’s the reason they lived up in the Mulchatna area. The only thing they had down here was the sheep and the bears and the fish, and that was it. They said when they moved down here and they found a moose track in the wintertime, they would follow them until they found it. So there were no moose in the past, maybe 75-80 years ago, or maybe longer...and then they got more and more.”²³⁰

Inland Dena'ina keep important traditional ecological knowledge alive regarding these traditional hunting grounds, despite the move of people and moose away from some of these traditional interior hunting areas.

Today, as in the past, hunting moose requires an intimate knowledge of moose behavior, seasonal migration routes, and preferred habitat and terrain. The hunt is said to be more challenging than hunting caribou, as moose are especially “wary” and hunters must be careful not to be smelled or seen.²³¹ As Dena'ina hunters explained to Fagan, “The best days for the hunt were those with a strong wind, when the hunter would stalk resting animals from downwind and try to kill them as

they rose to their feet.”²³² Moose are often easier to take in the spring and summer, when they can be found near lakes and bodies of water eating aquatic plants, or during deep snowfall in winter when moose are relatively immobilized. Many anthropological accounts report the nuanced understanding of Dena'ina hunters tracking moose—a prey species that is remarkably elusive, though very big.²³³

The moose hunt is traditionally undertaken on foot or boat, but increasingly involves the assistance of motorized transportation depending on the time of year. During the summer and fall months when waterways remain open, boats are essential. Hunters widely acknowledge they have always preferred hunting moose near shorelines—in part because it is the animal’s preferred habitat in summer, but also because of the challenges of packing out large animals on foot.²³⁴ Thus, people traditionally try to kill moose close to the shoreline of rivers and lakes, so that hunters can easily pack out the meat, or even establish a temporary camp while butchering the animal. Accordingly, moose hunting areas are reported along the full length of the Chulitna River. People often hunt by ATV, or even boat, right along the river corridor: “for moose hunting we always just follow the [river]; stay right in the river there” (DC). These factors have also intensified both camp creation and maintenance immediately along the Chulitna River banks.

There is a longstanding tradition of drifting the Chulitna River by boat while hunting the banks for moose. This method is a relatively silent way to travel, gives almost complete access to the prime riverbank habitat along vast stretches of the river, and allows hunters to catch moose unawares. Still carried out today, this practice receives occasional mention in past literatures regarding Nondalton moose hunting practices:

“Trips also are specifically made to look for moose around the shores of Lake Clark and Little Lake Clark and up to the Tlikakila and Chulitna Rivers. Families or groups of related men travel in one to three boats for several days, stopping periodically to walk and search for moose in likely areas. The groups camp at night and slowly cruise along the shore in early morning or late evening in hope of spotting a moose. ...A major hunting method is to drift the river with the outboard shut off, particularly in the evening, hoping to surprise a moose coming out on the river bank. High rocks providing good views of rivers, sloughs, and surrounding country are used as vantage points for locating moose.”²³⁵

During Behnke’s research, hunters were documented traveling over 150 miles by boat up and down the Chulitna River over the course of up to 10-day hunting treks.

In the summertime, moose hunters still travel the river by boat, though elders suggest this is best attempted with somebody who knows the area well; there are many little sloughs, the river is shallow in places, and chances of getting stuck exist. A jetboat is required to get through many of these areas, along with considerable local ecological knowledge. Boat travelers sometimes find it challenging to navigate in the winding channel of the Chulitna, and observe the juxtaposition of the hills around the river closely to keep their bearings. One important navigational landmark is a hill on the north side of the river, said to look “just like a beaver lodge.” The Dena'ina name, unrecorded, is said to have referenced a “beaver house.” Hunting by boat is relatively limited in the upper Chulitna above Nicovena Lakes due to the shallowness of the water: “it gets really shallow up there. So we had to pole through three different spots until we hit some deeper water” (CD). Additional caution is required when hunting there because the water is said to drop off with surprising speed at certain times of the year, leaving boats stranded in shallows and side-channels—a predicament even more challenging when packing out moose that can weigh 700 pounds or more (LH).

Often, the tracking of moose is required, however, with hunters following tracks, watching soggy areas where moose feed, and observing movements as moose emerge from wooded areas either in the mornings or early evenings. In winter, moose spend time in valleys feeding on willows and alders.²³⁶ At one time, snares were used to capture these elusive creatures along riverbank moose trails.²³⁷ Elders explain, “During the fall [hunters] watched for moose to emerge from protective wooded or brushy areas in the early evenings or mornings and shot them from as close a range as possible.”²³⁸ As with all inland Dena’ina hunting, the practice is traditionally guided not only by these nuanced understandings of the lands and habitats that moose prefer, but also a practical and ethical consideration of the moose population. For example, Nancy Delkettie speaks of traditional prohibitions on hunting young moose:

“You know right now, people are going up Chulitna, Long Lake and you know they see moose on the banks and stuff, but they’re not going to kill [any] calves Because they know they can’t do that. Not just because Fish and Game says we can’t, but, you know, common sense. So they won’t” (ND).

Modern hunters still sometimes use traditional inland Dena’ina “moose calls.” This includes birch bark tubes, blown through to make a call that sounds like that of a moose. Some also knock moose horns together, making the sound of rutting moose sparring. A few individuals report continuing success with these techniques.

While caribou hunting is sometimes seen as a younger man’s activity, requiring high levels of mobility on the land, the availability of boats allows older members of the community to participate in the moose hunt. Groups consisting only of elders have traveled into the Chulitna River Basin specifically to hunt in recent times. Larry Hill for example, discussed traveling into the Nicovena Lakes area with other elders—camping out for a few nights and successfully hunting and packing out moose. “That time it was just the old ones; we asked around and nobody else wanted to come” (LE). In this way, moose hunting remains a socially, culturally, and even psychologically important activity for older members of the community.

Many areas in the Chulitna River Basin are considered prime moose hunting territory including Long and Nivovena Lakes,²³⁹ the shores of Lake Clark near Chulitna Bay,²⁴⁰ across Sixmile Lake from Nondalton, and Groundhog Mountain.²⁴¹ The spotting of moose along the river corridor sometimes requires a higher vantage point, however, and high places are sought along the river corridor, including such places as Lookout Bluff. Interviewees describe the use of such bluffs along the Chulitna River riparian as lookouts for hunting all riparian species, but especially moose—a practice they assert predates European contact and persists into the present day. “[Butch’s] dad said he would get up on Lookout Bluff, there on one of those bluffs there, and you could look out on the flats and count like forty moose or something” (CD). Another popular lookout is Swallow Bluff: “that’s...really good spot right there” (RK). Tyrone and Baretta Trefon recount their experiences hunting moose at Lookout Bluff: “Sometimes we could be down there by that place called Lookout Bluff, we could just be there or we have to go quite a ways up to [other lookouts along the river]” (BT).

Historically, much moose hunting was centered on lower reaches, and the flats near Chulitna Bay, though hunters on motorized vehicles regularly hunt the upper reaches as well. As Clarence Delkettie says,

“Some people go all the way to Long Lake and all the way up to [the headwaters for moose]. Me, I just go as far as maybe [to] enter the flats or [go] up the river a ways you know. Maybe halfway—one time I went all the way up to Long Lake” (CD).

In certain places, the upper Chulitna River Basin is known to transition from good moose hunting areas to good caribou hunting areas. When traveling by ATV or snowmachine, men sometimes alternate between moose and caribou hunting along this ecotone, moving in and out of the riparian corridor:

“Me and Andy went quite a ways up there where it comes right down from the mountain, pretty much open area; nice gradual. Went from moose country to caribou country it looked like.... There were caribou quite a ways up there too, Chulitna; Little Chulitna somewhere.... We were actually looking for moose, but we ran into one caribou so we ended up getting a caribou” (DC).²⁴²



The view from Lookout Bluff to hunting areas below. DOUGLAS DEUR PHOTO.

The lower slopes of Groundhog Mountain, especially the wooded marshes and thickets, are also described as regularly used moose hunting areas visited by hunters on ATVs or snowmachines: “I always moose hunt down here in the wintertime on the backside of Groundhog” (DC). The White Rock area, and other timbered or well-watered portions of the lower slopes, are especially visited for this purpose.

Lakeshore hunting of moose is also reported in many places within the study area. There are a number of shoreline locations—rivers and lakes—that people mentioned as part of large hunting circuits when traveling along existing trails by snowmachine or ATV. For example, Portage Lake is such a destination along a major trail, a place where moose can sometimes be hunted as part of a larger hunting circuit:

“Portage Lake, ...it’s pretty big.... It makes a bunch of turns and bends. On this north side I believe, there’s a bunch of hills right here. And then Chuck [Trefon] and Butch [Hobson] were telling me there’s always moose up on top of these hills up there.... The only time you can really get to them is like wintertime because you never know if the Honda will make it back over here” (RK).

Fryingpan Lake was also mentioned as such a place, where camps sat along trail routes, serving as bases of operation for moose hunting as well as pike fishing, plant gathering, and other activities.

Interviewees note that moose become especially numerous in burned areas near the river corridor. In the short term, fires can reduce or displace moose population, a phenomenon that caused short-term food shortages in the late 19th and early 20th centuries when mining prospectors burned area forests.²⁴³ Yet in the longer term, the rebound of shoots, young trees, and brush is said to bring the moose into the area in great numbers. Darren Carltikoff, for example, notes an area near the Nicovena Lakes: “it burned over there a few years ago. There was a fire there. Seemed like after that, all the green started growing and started seeing more moose around there. Yeah, in those burned areas I guess” (DC). Similar fire-induced increases in moose population have been noted in other places nearby, such as where lightning-sparked fires facilitated an eventual rebound in moose population.²⁴⁴ While there is little oral tradition of traditional Dena’ina burning of vegetation, some interviewees suggest fires might have been used long ago to make moose hunting locations more productive and predictable.

Interviewees express concern that hunting pressure has increased significantly from both recreational and resident non-Native hunters, primarily arriving from Port Alsworth. This not only puts pressure on game resources, but tends to change the movement and availability of game in heavily hunted and heavily traversed areas, the Chulitna River being prominent among them. And while this affects caribou, a lot of the hunting and other activity tends to disturb the moose:

“It’s almost...competitive because you’re trying, and there’s a lot of people out there, not just locally but Port Alsworth as well...some go up float planes. When we’re coming into Long Lake there was a float plane parked [there and] a bunch of boats down here...we leave and come back later in the day and a lot of the boats are down [lower on the river] fishing, right in that little where it’s all weave; probably because of all the pikes and everything right there...a lot of traffic! ...It was crazy, I mean we only seen [one moose]. And then afterwards it was just, pretty much drift around for nothing” (RK).

Nondalton residents discuss how the area is much more accessible today, affecting the manner and timeframe in which subsistence resources are accessed. Moose is a major draw for outside hunters. Even hunters from faraway places like Dillingham are flying in to use the area now: “I don’t want to tell people where to hunt but there was people from Dillingham that was coming up and then they were in Long Lake and Nicovena area” (RK). Most waterways navigable by float plane or jetboats are said to be affected, with only a handful of locations said to be immune from these effects.²⁴⁵

What took days of travel by foot can now take a few minutes by airplane; hunting charters take advantage of this mobility in ways that affect game throughout the region. As one Nondalton hunter observed, “The guides...can take off here and be in Mulchatna in maybe 15, 20 minutes instantly. On foot you couldn’t move around much, so there’s a big difference.”²⁴⁶ Interviewees generally say they can tolerate these changes to a point, so long as visitors are respectful. Too often, however, visitors are not. As Randy Kakaruk says,

“I don’t mind people hunting. I don’t want to say it’s our area, but I consider it our area you know... if they’re going to be hunting where we go, at least respect what we have up here...they used to [just pick] which one you wanted to get. Last year we were up there for almost two and a half weeks and we only seen one [moose]...they used to be around every bend and corner there used to be a moose everywhere” (RK).

Tribal interviewees are generally dismayed to see trophy hunting for moose, with outside hunters taking heads or horns while leaving meat behind to rot. This is seen not only as materially damaging to hunting, but as a disruption of the traditional respect and sense of reciprocal obligation between hunter and prey. By traditional values, animals that are continuously disrespected will go away, and trophy hunting is understood to be profoundly disrespectful. In some Dena’ina communities, people have sometimes tried to harvest the kill left behind, or to make arrangements with hunters to bring the rest of the moose back to the village.

For this and other reasons, moose are said to be in decline: “There’s definitely a decrease...” (RK). A Nondalton resident speaking to Fall et al. made the same observation, saying, “We used to go up to Chulitna, you go up and stand on [Lookout] bluff, moose will be out there in the flats and you take your pick, go up there today, in the fall when you’re ready to hunt, there’s nothing, not one moose.”²⁴⁷ Other past studies have reached similar conclusions, based on the eyewitness accounts of Dena’ina hunters as well as state datasets.²⁴⁸ And traffic associated with development efforts within and to the west of the study area are said to have compounded these effects. As Darren Carltikoff describes,

“At one time I was sitting over here late in the evening waiting for that moose to come out. And he finally came out, and he’s walking up my [direction]. Soon as we packed up our stuff and started going over [to hunt], here comes a helicopter buzzing right over us and that moose turned around and walked back in the trees. I never seen him again” (DC).

Randy Kakaruk cites changes in habitat conditions, but especially the pressure from outside hunters and disturbances from mining exploration: “I’m not [just] blaming [it] on the brush I’m blaming it on the traffic as well... the whole way up [the Chulitna River Basin]” (RK).



Caribou browsing on tundra. NPS PHOTO / J. MILLS.

Caribou Hunting within the Study Area

The Dena'ina have been hunting migrating caribou across the landscape for countless years, forging pathways for this activity.²⁴⁹ Caribou are herd animals found in the alpine forests, moist tundra, treeless bogs, and open low-growing spruce forest environments.²⁵⁰ Following a seasonal migratory cycle of up to 400 miles between summer and winter ranges, they must keep moving to find sufficient food; and in spring and summer months when calving occurs, caribou seek out higher elevations, foraging on the leaves of sedges, flowering tundra plants, and mushrooms. Each herd maintains a unique calving area. Some, like the vast “Mulchatna Herd,” are nationally and even internationally famous for their sheer scale.²⁵¹ The Mulchatna caribou herd has been the primary harvest focus within Dena'ina traditional hunting grounds that encompass the Chulitna River Basin and expand south into the Upper and Lower Talarik Creek, and north and east into the Mulchatna and Stony River regions. During fall and winter months the herds descend into lower areas where they continue the constant search for lichens, dried sedges and small shrubs, seeking shelter and protection within the trees. At this time, the herds begin to move into lower elevations. Here they seek out open, flat areas where mosses and lichens remain free of snow due to constant wind, and continue to be hunted through winter. The caribou hunting grounds in these areas remain key interlinked places of enduring importance, as hunters travel between areas to follow the highly migratory animals.

During the spring, the female caribou of the Mulchatna herd seek respite and safety within the mountains—including those of the study area—to have their offspring and care for their new calves, while males continue onto higher elevations to feed. An elder in Holen et al. (2005) provided the following description of this seasonal behavior:

“In the old days, they wait[ed] for caribou in the spring. The [caribou] will go back to their calving grounds and the bulls will go higher up on the mountains to feed for the summer, that would be their feeding grounds and the cows and calves would stay down below for better feeding grounds and raise their calves.”²⁵²

Rick and Nancy Delkettie identify several such calving grounds for the Mulchatna herd “around Groundhog, Boy’s Mountain, Woman’s Mountain” (ND), and “Black Mountain. All those areas over there...” (RD). Another Nondalton resident also remembers Groundhog Mountain as a caribou calving area: “That’s our nesting area for caribou, caribou have their young in that area, around Ground Hog Mountain...”²⁵³ Nancy Delkettie recalls the migratory movement of the caribou, stating: “[I]n the spring time, I think is when we used to have a lot of caribou coming down on the lake; probably a thousand or more.... They come right over the pass there [between Volcano Mountain and Girls Mountain]” (ND).²⁵⁴ All of these areas were hunted when it would not adversely affect unborn or young calves both before and after the calving season. Summertime, after fish camp, was once a critical season for the caribou hunt, but modern technologies and time constraints have altered this timing in myriad ways.²⁵⁵

So too, the base of Groundhog Mountain was widely reported to be a caribou hunting area, used year-round. This is said to be an easily accessible hunting ground: “anytime of the year we’d go over and get some, anytime; moose, caribou” (GA). Many interviewees attest to its importance as a caribou hunting area: “For caribou it’s pretty much all around Groundhog, and then on the front side of this mountain here [just east of Nondalton]” (DC). “There are old camps and a lot of blazes on that far [north and west] side of Groundhog Mountain.... The caribou migrate through there and we’d camp out and wait for them” (BH). The mountain is said to attract large numbers of caribou from the surrounding lowlands, especially in the summer, as there are fewer mosquitoes and perhaps predators, while there is still water due to an abundance of melting snow:

“There’s always...in the summertime there’s snow patches up there, where it never melts. And the caribou hang on those patches.... It don’t melt until probably late July...They’re keeping away from the mosquitoes up there and...cooling off” (DC).

Caribou blinds and “walls” are traditionally constructed of stone in such environments to control the animals’ movements during the hunt, and route them into snares or other traps.²⁵⁶ Although no specific rock structures were mentioned by interviewees in this area, it is likely such structures could be found in relic form on exposed hills and ridges at Groundhog Mountain and in other mountainous settings within the study area.

The Chulitna River drainage and areas around Groundhog Mountain are traditional caribou hunting locations of great importance to Nondalton hunters.²⁵⁷ As in moose hunting, boat-based caribou hunting has often been concentrated along riverbanks, such as on gravel bars, in the summer. Thus, the Nicovena Lakes have often served as a hunting camp for the upper basin in summer. Upstream from there, caribou are numerous but the water is relatively shallow and hard to navigate during the late summer and fall.²⁵⁸ The upper Chulitna River Basin is often hunted for caribou in the winter, however—originally by dogsled and now by snowmachine:

“Caribou definitely up there too.... Darren and I followed the river right here, that’s Little Chulitna River. And it went up, him and I went up quite a ways because there’s a spot that’s right about here, I want to say, where it’s shallow. Him and I had hip boots which is about five miles past that and we were able to go...we got caribou up there” (RK).

These hunters note that, in winter, they attempt to track caribou using snowmachines, and hunting begins in areas proximal to village sites, radiating outward if the search is unsuccessful.²⁵⁹ Places such as Groundhog Mountain, Boys and Girls Mountain, and other nearby places are the first places to be checked, and hunted if caribou are found.²⁶⁰ The Mulchatna Basin and Telaquana Lake areas also represent extremely important caribou calving ground, as well as important caribou hunting areas historically. As noted elsewhere, these areas are still hunted, especially when harvests are poor closer to Lake Clark, with families traversing the study area to access these more distant, time-honored caribou hunting grounds.²⁶¹

Changes in the size and migratory route of the Mulchatna caribou herd have long been a subject of much concern, scientific investigation, and speculation. Declines in population, and changes in their movement, have had a number of effects on inland Dena’ina hunters.²⁶² Although caribou numbers have rebounded, Dena’ina hunters have observed a shift in migratory behavior away from traditional calving and hunting grounds close to Nondalton.²⁶³ As Randy Kakaruk observed, “[P]eople notice...caribou aren’t moving up where they used to be. ... [The caribou have] decreased quite a bit. There’s hardly anything around here anymore” (RK). Similarly, Charlotte Balluta noted that “only a few people were harvesting caribou in Nondalton because they were scarce near the community.”²⁶⁴ Caribou persist, but in smaller numbers, and often these appear to exist independent of the larger Mulchatna Herd. As a result of these changes, Dena’ina hunters are required to travel longer distances to other traditional hunting areas in order to find caribou—some traveling over one hundred miles, returning to traditional inland Dena’ina hunting areas such as those near Lime Village.²⁶⁵

While the reasons for these changes are debated, Nondalton residents consistently note that caribou have been moving away from areas around Groundhog Mountain, Frying Pan, and Black Mountain even faster in recent years—a fact they attribute to the introduction of exploratory mining operations in the upper Chulitna River Basin, Groundhog Mountain, and beyond. Jack Hobson, for example, is concerned that mining operations have inhibited the caribou movement toward traditional calving grounds, observing, “The whole mountain range there in back of Nondalton, where that...mine is, that’s in the heart of it, I mean Groundhog [and other mines] that’s in the heart of the [caribou] calving grounds” (JH). This view is echoed by Rick and Nancy Delkettie, who say that, in the last five or six years, they have witnessed this change in the caribou migratory routes as they move away from the Groundhog Mountain, Frying Pan, and Black Mountain.

Caribou, they suggest, have extremely sensitive senses of smell and hearing. Dena’ina hunters are intimately aware of this fact, as they track them across the winter landscape. So sensitive are these animals to sounds, that in 1981, due to excessively cold weather, “even when moose or caribou were located, they were difficult to approach because the cold weather magnified sounds.”²⁶⁶ Teresa Rickteroff (TR) expressed the concern that increased helicopter noise throughout the region reverberates for long distances, pushing caribou movement away from villages and traditional hunting grounds:

“About the wildlife, we don’t have as much caribou that migrates and they say they have to go further and further to hunt for moose. Not only that they’re flying over with their helicopter... [The helicopter noise] scare[s] the animals and stuff away, you know that noise carries for a long ways” (TR).

Clement Balluta also identifies helicopters, noise, and drilling as factors causing the movement of caribou away from traditional migratory routes in recent years. June Tracy concurs, saying “it’s a mixture of everything”:

“I think that, I think that too, it’s a mixture of everything, you know with a big caribou herd like that, you know I think their food, also their food ran out so they had to move somewhere else because their herd, it was a big herd you know, you could wake up in the morning and see caribou across the lake. And everybody would get all excited about it, but you know after they had their fill, they let it go.” (JT).

After a hiatus, mining exploration has continued. Interviewees suggest that the effects temporarily abated then rebounded in response: “We watched this summer; we won’t be able to go hunting over there. There will be too many helicopters flying around. They’ll scare everything out” (GA). Similar comments, unsolicited, were made by a majority of other interviewees encountered in the course of research—before, during, or after their formal interviews.²⁶⁷

Trapping for Beaver, Ground Squirrel, & other Animals

The trapping or hunting of small land animals for food, fur for personal use, and for income is a time-honored Dena’ina tradition, and remains important throughout the study area today. Historically, and to some extent today, the furs of small land animals have been important in the construction of clothing and winter items (e.g. mittens, hats, parkas, etc.) that are much-needed as protection against cold winter temperatures.²⁶⁸ In the past, trapping fur bearing animals, generally in the winter, has also provided a primary source of income. Albert Wassallie recounts the significance of trapping in his lifetime: “We trapped all over [fox and beaver were primarily in demand]—that’s the only one—the only way we can make money, the only income we have” (AW 1986). Rose Hedlund remembered the importance of trapping as a source of income: “My dad was a trapper. He left in the morning and came back in the dark. ...That was our biggest income” (RH 1985). Women also have played an active role in fall and winter trapping. Nondalton elders recall that “women and girls sometimes drove the dogsleds to trapping areas and were competent in snaring hares and ground squirrels, and hunting for spruce hens and grouse.”²⁶⁹ When interviewed in the 1970s, Katie Wilson remembered her mother trapping lynx, wolverine, fox, beaver, otter and muskrats in the Chulitna area, reporting, “My mom did. ... Sometimes we used to go across the lake to what they call Chulitna. That’s where all the beavers and otters and muskrats and everything in that river [were] so we used to go and trap over there” (KW in Branson 2014).²⁷⁰ The study area—including the Chulitna River Basin and the lands to the north and west of Nondalton—remain the epicenter of modern trapping. This area is also traversed as people have traveled to other important traditional trapping areas beyond, to the west, and north of Nondalton.²⁷¹

Historically, men, women, and children trapped throughout the year. Beaver, ground squirrels, porcupine, “rabbits” (snowshoe hare), Alaska hare, muskrat, marmot, red and cross fox, marten, short-tailed and least weasel, mink, wolverine, river otter, and lynx are all traditionally utilized by the Dena’ina for food and clothing. Furs and materials made from these animals serve as a source of income, and remain an important part of traditional crafts including those used in ceremony. Roughly half of the households participate in some kind of trapping or other small mammal harvests for these purposes



Red fox in winter. NPS PHOTO / J. MILLS.

today. While trapping locations vary considerably depending on the season, the current study area is a cornerstone of traditional trapping and small animal hunting activity—principal use areas being centered around Nondalton “and outwards into two locations”: “near Groundhog Mountain, near the headwaters of Upper Talarik Creek and in the Chulitna River valley” (in Fall et al. 2006: 171).

When winter arrives, trapping intensifies as animals’ fur thickens in response to colder temperatures, a phenomenon interviewees mentioned for beaver, fox, mink, marten, and lynx. During the winter, when snowfall begins to accumulate and waterways freeze over, trap lines are traditionally constructed, radiating from a central campsite, sometimes punctuated by smaller camps near trap sites. Ellanna and Balluta (1989[1]6:48) note that “[a]n average trap line was 25 to 30 miles in length during short winter days. A man running a trap line took from 7 to 9 dogs and stayed out for 10 days to a couple of weeks at a time.” Historically, women, children, and the elderly often participated in trapping from these well-established camps while men hunted in nearby lands in the fall. Ellanna and Balluta (1989) list many fall trapping camps identified by Nondalton families:

“Fall trapping camps most commonly used by Nondalton Dena’ina during the study period included Nan Oelah (Miller’s Creek), where there were four cabins in the early decades of the 1900s; and Kijeghi Tsayeh (Owl Bluff), Oalnigi Tunilen, Chaq’ah Tugget (no English name, a bay on Lake Clark across from Tanalien Point), Lynx Creek, and Nikabuna [Nicovena] Lake, all of which had only a single cabin. Some trappers left their families at Miller’s Creek and ran trap lines between Lake Clark and Telaquana Lake along the Telaquana Trail, with cabins at K’a Ka’a (a valley on the upper Chilikadrotna River), K’adeła Vena (Snipe Lake), Denyihntnu (no English name, a canyon on the Mulchatna River), and Telaquana Lake” (1989[1]6:46).

Over time through the late 20th century, motorized vehicles such as motorboats, snowmachines, and ATVs allowed for more efficient checking of traplines. People less commonly use trapping camps, as they can often run their lines in a single long day trip from Nondalton. Still, some trapping camps remain.²⁷²

From Nondalton, trapping continues to occur concurrently with hunting, and is concentrated in the winter months: “When there is sufficient snow, Nondalton people travel around the northern end of Hoknede Mountain into the Chulitna drainage to trap and to look for game.” Even when there is little snow on the lowlands, trapping continues in the hills north and west of Nondalton, wherever there is sufficient snow for snowmachines and animals still have thick wintertime fur.²⁷³

Significantly, several of the trapping sites outside of the study area continued to be important for trapping throughout much of the 20th century. The Mulchatna River is said to be an excellent place for trapping—even better than the Chulitna at times, as there are additional resources such as Chinook salmon in abundance when trappers are there. A number of Nondalton families have traveled through the study area to access those areas.²⁷⁴ The same can be said of trapping areas along the Chilikadrotna River.²⁷⁵ Some families, especially those with family roots near Telaquana Lake, continue to trap fox, beaver, and other species in that region.²⁷⁶ Yet as with so many traditional Dena’ina practices, these families continue to consolidate trapping closer to home, most often transferring longstanding skills learned in other inland Dena’ina territories to places within or very near the current study area. In this way, the cultural traditions and knowledge relating to inland Dena’ina trapping and hunting practices are now significantly tied to local landscapes: the Chulitna River, Groundhog Mountain, and places nearby.

As in hunting, prohibitions on displays of “disrespect” are integrated into trapping practices. Trappers still possess an extraordinarily detailed knowledge of trapping, and use their skills to ensure the harvest is targeted, bringing no harm to non-target species. Clarence Delkettie, for example, uses special bait to avoid inadvertently trapping birds and other creatures when setting traps:

// Beaver...That's what I usually catch first in the fall times.... I get a beaver and I save the catch then I use the castor for catching the lynx and the wolverines. Because most of time if you use like scraps and bait and stuff, it draws the birds and the birds see the scraps or whatever and then you catch a magpie or a crow or whatever...in your trap and you don't want that to happen. So beaver catch was better because you don't have any bait laying there for the birds to see and then snaps your trap. Most of the time if I use bait, I just—like a piece of moose hide or something, I just dig a hole that deep and put it underneath the ground and just have a little bit of it underneath the ground far enough so the birds couldn't see it but the wolverine will smell it. ...The trick is you catch a beaver first and then you got bait for all the other animals" (CD).

Other special skills are used to deliver furs in the best condition possible. "You got to skin it out good, you know try to be clean and stuff" (CD). This not only fetches a better price, but demonstrates the care and skill of the trapper or hunter who acquired the fur.²⁷⁷

Beaver Trapping & Hunting on the Chulitna

Beaver are of great traditional importance to the inland Dena'ina people—for food, tools, and especially for pelts.²⁷⁸ Culturally, they are a keystone species, and are trapped and hunted primarily along the Chulitna River and in other portions of the study areas: "Many beaver are along this thing as well, the river there. Seems like every corner you go around you hear some splash; that's a beaver diving" (RK).

Beaver pelts are at their thickest in the winter, thus, beaver camps are traditionally constructed in winter, along Chulitna River and other waterways nearby. As recorded by Ellanna and Balluta (1989), "Beaver trapping took place from the winter camp base usually within a single day's travel from the main camp of 20 to 25 miles on average. Spike camps were established for overnighing away from the main camp."²⁷⁹ For example, Andrew Balluta reported traveling to *Huk'esdlik'l*, a valley north of *Nach'ghihuntnu*, with his family during fall hunting season to trap beaver, and remembers his father bringing beaver back to camp through the winter months (AXB 1986). He stated,

// The men trapped beaver under the ice on the *Q'uk'tsatnu* River and *Ch'dat'antnu* (Black Creek) during overnight trips from our main winter camp. ...Beavers were brought back to the main camp, where my dad and his brother skinned them out and stretched the hides. My mom hunted them to freeze" (AB in Ellanna and Balluta 1989).²⁸⁰

An in-depth description of beaver trapping technique is provided by Ellanna and Balluta²⁸¹: First, a beaver lodge is identified and targeted by searching for "beaver cutting[s] which indicated that beaver had taken their food supply late in the summer and in the early fall in that area. Trappers expected beaver lodges to be located very near such cuttings." Steps are then taken to set traps or snares in the ice:

// Holes were cut in the ice near the lodge and traps or snares set with bait. ...In the case of steel snares, the ice hole was placed near the runway between the beaver lodge and its food supply. Three snares attached to poles placed horizontally on the surface of the ice were set perpendicular to the poles at angles in a triangular formation six inches or so below the ice. A freshly cut piece of willow, birch, alder, or cottonwood was set in the bottom of the creek or river bed through the middle of the ice hold and frozen in place. When the beaver attempted to recover the newly cut food source, it would attempt to cut it free from the portion of the bait above the ice. In doing so, it necessarily maneuvered into one of the snares, thereby entangling itself and drowning."²⁸²

Dogs were often used in beaver hunting as well, with hunters breaking into the lodge and hunting beaver, aided by dogs, as beaver attempted to exit.²⁸³ Moreover, beaver are traditionally hunted by removing a few sticks from their dam: "Them big ones is the one that watch and make sure the dam is still secure.... They'll start digging and making noise and go over there and that's when they grab them" (RD).

Trapping often continues well into spring. As the ice clears, men and boys traditionally travel the rivers—checking traps, but also hunting beaver as they go. As elders reported in the 1980s,

// Single or paired men and older boys in skin-covered canoes went out on the rivers to hunt beaver with firearms or trap them on riverine beaches. ...The beaver provided both an essential source of fatty rich food, contrasting with other sources of protein available during this season...[and] pelts which were important for Dena'ina clothing, including caps, linings, gloves, trim, or in some cases, entire outfits made from beaver pelts."²⁸⁴

Springtime is also when beaver are most desirable as a source of food. Butch Hobson explains that beaver's flavor varies over the year, reflecting the beaver's diet and changes in their fat content. In fall, beaver eat plentifully, building up a layer of fat that helps them survive the winter, making them especially flavorful during that season. In summer, the beaver is

usually not palatable, but in early spring they are good. Another Nondalton resident explains how the beaver's seasonal diet alters the taste of the meat: "Beaver in the spring time, you know, before they eat the greens, that's when we want to get the beaver."²⁸⁵ By later spring, they are less palatable due to a lack of fat.²⁸⁶ Beaver meat is often smoked and dried, and generally keeps better than other meats.²⁸⁷

Beaver have been widely trapped and hunted in the study area, especially along the Chulitna River. As Jack Hobson said of the Chulitna "sometimes people come here in winter time and do beaver trapping. In fact I got trap line that runs through here" (JH). After Mary Hobson was married, she would travel with her husband, Steve Hobson, to camp at Nikovena Lakes and trap beaver during the spring months of February and March (MH 1986). Alex Balluta, whose family trapped beaver in springtime during his youth, noted their beaver camps were located "right in Chulitna...all over Chulitna. They go Nikabuna Lake [Nicovena and] Long Lake" (AXB 1986). Other trapping in this area is described widely, and in numerous sources: "[Andrew Balluta] trapped primarily beaver with Paul Zackar...in the Chulitna River area in the vicinity of K'chanlentnu."²⁸⁸ Albert Wassillie recalled, "we used to trap *Nikugh Vena* [Nicovena Lake]... all over the place" (AW 1986). Marshy areas and tributaries of the Chulitna, mostly on the northern side of Groundhog Mountain, have been popular trapping areas as well: "They used to trap beaver over by the base of Groundhog Mountain" (GE). The margins of the larger lakes are also trapped extensively throughout the study area, especially for beaver. As Clarence Delkettie says,

// "[I] have a couple traps running out...all the way almost to Snowshoe Bay here, up that way. After you get up here it gets swampy and there's little creeks and there's beaver houses all along here. ...There's beaver houses near Tanalian Point there too. There's one real big one. It's the biggest house I've ever seen. It's almost wide as this building. Never seen one that big. It's a mansion!" (CD).



A winter beaver camp, used both for trapping and the education of tribal youth, on the banks of Chulitna River, 2010. KAREN EVANOFF PHOTO.

The resulting geography of traplines, cabins, and camps in the area was complex, involving most watered portions of the study area.²⁸⁹

The use of these places changed gradually through the 19th and 20th centuries. Always a good place for beaver, the Chulitna River became the epicenter of Dena'ina beaver trapping through the 20th century, following the movement of inland Dena'ina families. As families consolidated in Nondalton in recent generations, they often brought beaver trapping practices from elsewhere to the Chulitna. For example, Paul Zackar recalled that after marrying he moved his winter beaver trapping grounds to Chulitna in the area of Lynx Creek and Middle Fork (PZ 1986).²⁹⁰ In the 19th and 20th centuries, men and boys often

trapped and hunted beaver along the lower and middle reaches of the river, while their families processed the meat at camps downstream, including Indian Point. Albert Wassillie, for example, recalled these annual springtime gatherings at Indian Point: "Everybody have ducks, beaver; they'd dry the beaver a certain way" (AW 2010). Beaver move from place to place over time, occupying certain lakes or river margins previously unoccupied. For this reason, the Chulitna River Basin is of premier importance for beaver, though precise locations change over time reflecting local abundance. Families still scope out good beaver areas along the Chulitna with this in mind, adjusting the locations of hunting and trapping accordingly.

After World War II, the price for beaver pelts fell drastically. The importance of trapping as a source of income declined in response to shrinking markets. Andrew Balluta expounds on this trend, stating: "After 1959 the fur market declined to the point that trapping was no longer very lucrative. All remaining hunting and fishing activities became village based."²⁹¹ There has been a noticeable decline in beaver trapping as a result, as well as the ancillary activities and crafts associated with beaver procurement. As Rick Delkettie observes, "When I was little, I remember everybody used to kill beaver. Shoot em, trap 'em, and snare 'em. OK? We'd have beaver hats, beaver mittens, beaver shoes...not as much now" (RD). "[In] my dad's generation, they trapped all over. That was their main income; trapping" (RK). Some report that the decline in beaver harvests was accompanied by an increase in beaver numbers that ironically made beaver harvests easier, in spite of a declining market. Albert Wassillie, Sr., for example, described a bumper crop of beaver when he spent three early spring months in 1971 in the Chulitna region by himself:

// "And then that April month is beaver season. So I started in on beaver. And there was so much beaver I caught sixteen beaver in one week. ... So I told the pilot if anyone wanted beaver come down here and we'll get somebody. So when he came back up he brought Henry, Henry Trefon. He got his 15 beaver in a week, so much beaver. And we use all the meat too. We just load that plane up with beaver and brought it down so we never throw it away" (AW 1985).

According to a recent study by Shaw (2013), young adults in the village of Nondalton continue to trap but not as a principal source of income: "fox hunting/trapping and gathering greens are ... not viewed as preferred activities for subsistence and appear to now signify instead, for them, modes of sport (i.e., recreation) or supplemental, rather than essential, family income."²⁹² Still, the importance of beaver persists. The fur of beaver has long been a trade good, but also remains a key element of traditional clothing and crafts. Beaver hats and mittens are still made by skilled craftspeople, using beaver trapped along Chulitna River and Chulitna Bay. These are still used by families in myriad ways—in ways that are utilitarian, but also linked to events like funerals, where they play a symbolically significant role. Elders report they are "harvested during the spring primarily on the Chulitna River.... [I]n recent years beaver was eaten in most households during some part of the year and the pelts were used for the construction of distinctive headgear in both Nondalton and Lime Village."²⁹³ The meat is also widely appreciated and consumed in moderate quantities today. The Beaver Camp, held on the lower Chulitna, is an educational event for Nondalton youth, carried out with the guidance of tribal elders so that knowledge of the beaver, of trapping practices, and of the lower Chulitna River beaver camps will endure.



Arctic ground squirrel. NPS PHOTO / S. MAUGER.

Ground Squirrel & Other Species at Groundhog Mountain

In the study area, the *qunsha* (also referred to as “ground squirrel” or “mountain squirrel”) are among the most important small land animals traditionally targeted for food in the Dena’ina seasonal round. Traditionally, during the fall months as men went out to hunt, children accompanied women to trap ground squirrels on mountains like Groundhog Mountain, Boys Mountain, and Girls Mountain, and in more distant areas around Pedro Bay.²⁹⁴ Trapping camps are specifically constructed in the fall for squirrels. Olga Balluta from Nondalton describes how the Dena’ina dry or smoke ground squirrel for winter consumption: “When they’re drying it they smoke dry it [ground

squirrel, *qunsha*] and put that up for the winter” (OB). Historically, the meat of ground squirrel is consumed as a winter food after being dried, or eaten after roasted on a fire. (Other types of squirrels, incidentally, can be eaten but are treated more as a famine food, used in lean times: “spruce squirrels... don’t eat them much [but] you can live on that” [BH]). Even more importantly, the hides of ground squirrel are traditionally removed, dried, and later stitched together to make waterproof parkas, mittens, and other items.²⁹⁵

A number of interviewees spoke of trapping ground squirrel in the study area, especially in the hills of Groundhog Mountain (*Qiyhi Qelahi* ‘marmots are gathered there’) west of Nondalton. “There’s groundhog squirrels everywhere back there” (FS). “After fish they used to go up [to Groundhog Mountain] and snare squirrels for food” (GE). It appears that Groundhog Mountain—a prominent landmark in the study area and a former epicenter of ground squirrel harvests—was named after the species. The small squirrels were traditionally hunted on the lower to middle slopes of hills, in rocky areas, using snares—small snares of sinew, sticks, and bands made of the feathers of eagles or other large birds, placed beside ground squirrel burrows: “women trapped ground squirrels with snares made out of eagle feather stems.”²⁹⁶ Olga Balluta recalls that she and her family traveled to Boys Mountain and Girls Mountain for the purpose of trapping ground squirrels to be used for much needed winter clothing: “...they used to make parkas out of those, hats; they used it for socks; they used it for mittens. ...[T]hey’d use snare from ... seagull wings, when they found eagle feathers, that’s their snares” (OB).

Modern elders such as Gladys Evanoff clearly recall hunting squirrels throughout their youth using traditional

snares. Middle elevation areas were sometimes visited for multiple harvests of squirrels, blueberries and, for example, specialized subalpine resources like chocolate lily bulbs. A mountain used for these purposes was, accordingly, called “Chocolate Lily Mountain” in Dena’ina, situated northeast of Kijik, north of the present study area. Families maintained camps in these subalpine environments during the harvests. Gladys Evanoff recalled similar practices to the south, near Pedro Bay: “My grandma packed all that gear up the mountain... sometimes she packed me up, too! We’d stay there a long time... we ate squirrel meat and berries and dried squirrels all day” (GE).²⁹⁷ Such practices, interviewees attest, were also commonplace at Groundhog Mountain.

Women were skilled at making ground squirrel snares out of both seagull wings and eagle feathers: “Yes, you have to make your own snares. Seagull wings and eagle.... Lots of sinew you have to string to make a string for that snare. That little stick has to, small one you have to cut it for that snare. ... I got lots of them at my house, mom’s. I know how to set it too” (MH 1998). The snares were positioned above the ground squirrel’s hole, and according to Pete Kokelask, the traps were numerous: “Lots, whole side of the mountain, we set snares”²⁹⁸; “Women recalled using up to 100 snares for trapping ground squirrels.”²⁹⁹ Though the practice has diminished, some of these old camps are reported to be detectable today. In more recent times, people hunt ground squirrel with rifles. For example, in the 1980s Albert Wassallie recalled:

“Last spring I went up, I never seen so much squirrel. Steven [Butch] Hobson Jr. went over there and his boy shot twenty four on the snow... So much squirrel. I’ve never seen so much squirrel. They were fat. A lot of people don’t like it...I told him to give it to me. Roast it, oh! That’s good” (AW 1985).

Interviewees state that ground squirrel use has declined significantly in the last generation or two. June Tracy noted, “a lot more people are sort of getting away from our traditional like, porcupine or whatever [*qunsha* ‘mountain squirrel’]; they used to go mountain squirrel hunting in the spring time. And, you know, we don’t do that as much as we used to” (JT). This not only reflects changes in schedules and the ease of alternative foods, but changes in overall Dena’ina dietary practices.

Yet certain locations like Groundhog Mountain, and waterways visited on the trails approaching Groundhog Mountain, are still considered important trapping sites, not only for ground squirrel, but for other furbearing species. One Nondalton resident describes in detail the trapping areas he is familiar with, stating: “They used to go to Long Lake and to Nondalton again. ...They went to Frying Pan Lake. They camp, go on this side of Groundhog Mountain, there’s timber over here, hill and timber, good camping ground.”³⁰⁰ The Balluta family has used a similar pathway to and from the mountain in establishing traplines: “They went to Frying Pan Lake. They camp, go on this side of Groundhog Mountain; there’s timber over here, hill and timber, good camping ground, cottonwood area. That place is called Eseni Dghi’u.”³⁰¹ Likewise, Clarence Delkettie reports trapping along the ridges of Groundhog Mountain as part of a larger circuit of traplines:

“We trap... the other side of Groundhog. I was trapping over here this winter; trapping around there by White Rock. And I used to trap up [on the nearby ridges] too, all the way along here... lynx and wolverine... marten.... And up here on the right side of Groundhog here we called White Rock. And... in the Park... right around this area [near the Lime Village Trail]. ...I had traps all along from here to White Rock. That’s a big rock there. Rock is about as high as the ceiling right here!” (CD).

Traditionally, people trap in the wooded areas on the lower slopes of Groundhog Mountain, on the Chulitna River drainages, and also camp on the margins of those woodlands—an area Dena'ina placenames describe as dense with cottonwood (GA, KE). As George Alexie recalls of the area, there are: "Big huge cottonwoods. That's where they used to go with dogs because there was nothing; no trees, little shrubs and brush. ... And that's where they used to camp and get wood, shelter... good beaver trapping there" (GA).³⁰² The Groundhog Mountain area has been trapped or hunted for beaver below, and for rabbit, lynx, wolverine, and other species all over the mountain. Rabbit, hunted for food and meat at Groundhog, was said to be especially important year-to-year, while the use of other species fluctuated with fur markets and local demand.³⁰³ Among the areas used for fall trapping by Nondalton residents, Groundhog Mountain continues to be the most important to date, and is still actively used by the community for this purpose.³⁰⁴

The Hunting & Trapping of Other Small Animals

Muskrats are traditionally snared, trapped, or hunted in the marshes and riparian areas along the Chulitna, near beaver trapping sites. As Gladys Evanoff recalls, "muskrats are good skin and useful too...there used to be lots of them, and people got them....on Chulitna...and even [sold] those skins too" (GE). In the mid-20th century, muskrat pelts sold for between \$1 and \$2 each, providing modest additional income to families hunting and trapping along the Chulitna. The animals are still trapped for their meat and fur. However, muskrat populations have declined in recent years in the Chulitna drainage, as observed by one Nondalton elder in Krieg:³⁰⁵

“ [19]56, Chulitna, trapping for muskrat, there was just so many of them, over there, everywhere. All the way up Chulitna River into [prob. Nikovenā] lake. ...This area here in Lynx Creek...they used to trap muskrats up in there a lot. ... [Then] the pike showed up. The muskrats started to decline, and now there're no muskrats there at all...”

Upland species are also widely reported to have been trapped along the margins of the Chulitna River riparian area, or on upland areas nearby.³⁰⁶ Fox, marten, lynx, wolverine and other species are especially sought in these areas—also being taken primarily in the winter, when pelts are thickest. The village site acts as a nucleus from which miles of trap lines extend in each direction. As Andrew Balluta explained,

“ After the lakes, rivers and creeks froze and there was enough snow on the ground, my dad and his brothers left the main camp for as long as a week to 10 days setting traps for red and cross fox, lynx, wolverine, marten, river otter, and mink and made spike camps” (AB in Ellanna and Balluta).³⁰⁷

Such upland animal trapping is especially popular today in the low hills and flats between Groundhog Mountain and Nicovena Lakes. “There's always a lot of good fur over there. Every time you drive through there there's wolverine tracks” (GA). Likewise, Clarence Delkettie observes,

“ Those flats area and this area...lots of wolverine, minks. ...We used to have a camp over there on that side: Trapping camp...trapping, hunting, whatever. ...I always set traps too. I always set traps on the back side, going down here to these timbers” on Black Mountain, Sharp Mountain, and the lower slopes of Groundhog Mountain (CD).

Many trappers have other traplines covering large circuits, linking many waterways and hills throughout the study area.³⁰⁸ The extent of trapping areas is vast, and would take many pages to convey fully. Maps accompanying this report are helpful in demonstrating the broader geography of these practices within and immediately adjacent to the study area.

The number of other small animals traditionally harvested in the study area for food and other purposes is impressive. A Nondalton resident describes in Fall et al. the many animals targeted, and how seasonality affects the desirability:

“ We eat mountain squirrels, rabbit, porcupine, get rabbits any time of year, porcupine, [although] not springtime. The animals, we don't bother them in the spring when they're having their young ones. When they first start eating greens too their meat doesn't taste good; no fat in it. [The] reason they use it in the fall is they have fat, use the fat also. [We] eat beaver, muskrat, ducks, swans; we don't eat that many swans. Porcupine, you don't eat it unless you are really hungry because they are so easy to kill; just hit them over the head.”³⁰⁹

These small animals remain important as supplementary foods for inland Dena'ina, used throughout the year. Olga Balluta (OB) from Nondalton told how the Dena'ina traditionally dry the meat from not only ground squirrels, moose, and caribou, but also beaver and rabbits—to eat throughout the year. Though these practices have changed somewhat, the small animals are still sought in the study area, especially coincident with the harvest of big game. Hares, or “rabbits,” for example, remain a source of food and fur. Traditionally they are considered invaluable when sources of big game are unavailable. Ellanna and Balluta explain that “[r]abbits' [snowshoe hares] were mentioned throughout the oral historical record as an emergency food source when the Dena'ina were unsuccessful in obtaining large game—starvation fare, as it were.”³¹⁰ The hunting of rabbits continues as a largely supplementary activity, providing extra meat, but also sometimes pelts.

Similarly, porcupine are still hunted, more or less opportunistically as people travel from place to place within the study area:

“ Porcupine is another one. [Fawn Silas] and I usually get one about every summer usually we get one. ...It's good eating too. I like it. It's really rich you know and oily; yeah oily. Almost like black bear meat. [You can hunt them] just anywhere; you could go anywhere.... There's a lot of them” (RK).



Porcupine. NPS PHOTO / J. MILLS.

As noted elsewhere, the quills are also very important, even today, in traditional crafts: "Porcupine provided both highly desired meat and quills, lavishly used in various forms of decoration."³¹¹ Accordingly, Pauline Hobson (2010) notes that the porcupine continues to be harvested for food and quills, its harvest conducted with deference to Dena'ina resource harvest ethics:

“They are easy to kill on the ground, just hit them on top of the head with a stick and it's dead. Burn the fur off, gut it, and take it apart. You can cook it in hot water. It is possible to cook it over the fire too. This animal is easy to kill; that's why you respect it.”³¹²

Other Species Commonly Hunted in the Study Area

Black and Brown Bear

Brown and black bears have contributed much to the diet and other needs of inland Dena'ina people. Oral tradition indicates that brown bears have been a vital source of meat during times when caribou or moose were scarce or unavailable.³¹³ Brown bear has been an important source of meat and fat. In addition, the intestines were historically made into waterproof raincoats and used as windows before the introduction of glass. Bear stomachs were used as floats. Moreover, "[B]rown bear fat was rendered by the inland Dena'ina into an oil which was eaten with most dried meat and fish and mixed with greens or berries in many Dena'ina dishes."³¹⁴ Traditionally, black bears were hunted for food and other materials during the spring months of April and May, and again in the fall during August, September, and early October. This is due to the variable quality of bear meat and overall fat content based on seasonal foods consumed by the animals. Often, bears were historically hunted in their dens, with spears and other traditional weaponry.³¹⁵ In Andrew Balluta's (2008) narrative, *Ggagga Ahdults'ih ha Ggagga Ni'unilyaxi, They Stay (Hunting) for Brown Bear at Night and Bear Butchering*, he described traditional brown bear hunting techniques:

“/In the fall, in fall they would go for brown bear.

/That is when they get really fat,

/due to eating salmon. ...

/They would go for them at night.

/The various bears were gathering (food) at the spawning ponds.

/They would look carefully where the bear had their trails coming out.”³¹⁶

Today, Nondalton hunters remain the most active bear harvesters in the region, with more than half of households still harvesting black bear, a large portion of it from within the study area. Black bear is said to be a “delicacy,” and “hunters report that they use ‘everything’ from a black bear, even if brown bears are only typically killed if they enter Fish Camp.”³¹⁷ Black bear hunting is especially significant in the study area. As bear hunters attest,



Black bear. NPS PHOTO / J. MILLS.

“We use black bears always. We usually get one a year and keep up the tradition of using black bear.’ ‘We get one or two black bears every year. We do go out and hunt black bears.’ ‘We eat black bear meat all the time.’ ‘We eat black bear and use it whenever we get it.’”³¹⁸

Hunting black bear is still described as a widespread practice along waterways near the upper Chulitna River, including tributaries of Long and Nicovena Lakes:

“There’s a little creek coming out from this lake here. And land down there and walk up on the hill there and just watch over here for black bear because it’s just a short ways in there and you’re right next to them. And that’s usually in September...my mom used to run through there and the oil was used for freeze-dried salmon” (RD).

Bear trails are said to be numerous in the area. During the springtime, bears are emerging from a long winter sleep, so bear-hunters follow trails from winter dens, tracking bears through the forest, as Albert Wassillie describes:

“And the bear trails. You could see where the bear springtime come out. They find the pitchiest tree and they rub that old hair off with the pitch. They rubbed themselves on the tree. You can see it in the bear trail there. Bear hair all over the place. ...Tracking bears in the spring time. When they first come out of the den they’re still fat, so they’re hunted when they first come out of the den.”³¹⁹

Beyond Chulitna River, there were many lakes and waterways in the study area that have been the venue for bear hunts. Andrew Balluta, for example, remembered traveling on foot through the study area to *K’q’uya Vena* with his father and uncles for the purpose of bear hunting:

“Later in the fall, before my family moved to fall trapping camp or went back to Old Nondalton, my father and his brothers went brown bear hunting. ...They traveled on foot about two miles north across the mountains to *K’q’uya Vena*.... They found fish ponds where sockeye were spawning and located spots where tracks and trails indicated that brown bears were feeding. They waited until evening or into the

night on the opposite side from where the bears entered the fish pond and when moonlight enabled them to see the bears” (AB in Ellanna and Balluta).³²⁰

Especially in the late summer and fall, hunters sometimes follow bears to their berry foraging areas, including not only riparian berry areas, but berry patches in the hills and mountains throughout the study area.³²¹ Bear is generally avoided after the peak fish runs, however, as the meat takes on an unpleasant fishy taste relative to other times of the year.

Bird Hunting & Egg Gathering

The Dena’ina hunt a variety of birds in the Chulitna River Basin. Birds migrate continuously during the summer between the lakes and marshes of the upper Chulitna as well as the waters of Lake Clark and Sixmile Lake, and smaller lakes throughout the adjacent lowlands, making the study area one of the prime spots for bird hunting in inland Dena’ina territory. Migratory birds such as swan, Canadian geese, and several duck species (e.g., mallard, pintail, greenwinged teal, and old squaw) are hunted extensively in the spring, with mallards and geese especially popular.³²² Fall hunting for these species is also commonplace.³²³

With its slow waters, riparian marshes, and side-channels, the Chulitna River has long been a popular place for hunting waterfowl. Ducks, geese, swans, even terns and other species are commonly hunted there, with the Chulitna River riparian and Nicovena Lakes being especially important.³²⁴ They’ll get just thousands of ducks in there.³²⁵ Hunting on the Chulitna is said to occur “mostly in the springtime for ducks and birds” (CD). Randy Kakaruk reports:

“You get birds all the way up. Long Lake area is a great place for birds... and actually Nicovena, if it’s open there’s like a really, really good spot for everything—geese...in the spring. There’s always ducks in this, year-round. When we went hunting last fall there was ducks everywhere” (RK).

So too, Jack Hobson recalls hunting in the Nicovena area for:

“All types of ducks, geese, we’re allowed to hunt swan over here too and we get different types of geese and we get sand hill crane. ...We just hunt right around here between these two lakes, they open up around the edges because of how shallow it is and all the birds migrate through here (JH).



Trumpeter swans. NPS PHOTO / J. MILLS.

The lower Chulitna River flats and Chulitna Bay—including the Turner Bay area—were said to be some of the most important waterfowl hunting areas in the region. “There’s another place down the river [we hunt]—it’s Chulitna flats” (JH). The camps at Indian Point historically served as a base of operations for these families, which has continued somewhat today. According to Nancy Delkettie, “there’s people that still go up to, like, Indian Point and Chulitna and hunt birds and stuff. You know, they stay a couple nights. Mostly the younger people” (ND).

People sometimes take hunting trips to the Chulitna River in very late winter or early spring, when there is enough snow to travel by dogsled or snowmachine, yet lakes are becoming ice-free and full of birds. During this time of the year, hunters traditionally stock up on waterfowl for the year ahead:

“[They’d] come back with a sleigh full, totally full of birds. Spend like a couple days up there. Now I’ve heard of people doing that like when there’s just no snow to get back down the mountain here. They’d go all the way to Nicovena and then they could pile up birds” (RK).

The small ponds in the area between Groundhog Mountain and Chulitna River are also hunted for waterfowl, especially at this time of year:



“A lot of these ponds right here have birds in them...we got a couple ducks out of these ponds right here. They’re ‘black ducks’ they call them...any little pond that you see; swans and everything back there too. There’s not too many geese, but there’s always ducks and you always see swans back there” (RK).

Sunset on the Chulitna River

NPS PHOTO / D. KHALSA

The timing of these hunts has to be precise. If the ground has thawed too much, approaches along the marshes and riverbanks can be swampy and can bog down snowmachines. Moreover, it is a long trek from Nondalton to these areas for bird hunting, and when the Chulitna or its nearby lakes “was frozen...it wasn’t really worth making the trip” (RK). Nondalton resident recall that hunters traditionally “dry meat and ducks and salt the ducks in brine water during the summer.”³²⁶ Today, birds can be smoked, frozen, or otherwise preserved for later use.

The Sixmile Lake area is also hunted extensively for waterfowl, in large part due to its proximity to Nondalton but also because birds congregate in the area: “there’s lots in there man—a lot!” (RK). People often hunt the shoreline on both sides, by boat, but also by foot, if water levels allow.

Beyond the birds mentioned here, others are traditionally hunted by inland Dena’ina families. Of the 135 species of birds found throughout the Lake Clark and Iliamna Lake areas, more than “30 species or subspecies were named and used by the inland Dena’ina and commonly familiar to both young and old in the mid-1980s, as in the past...”³²⁷ Spruce hens and other birds are still widely hunted within the Chulitna Basin and other areas north and east of Nondalton—year-round, but especially in the spring. Spruce hen and ptarmigan are often hunted incidentally in the course of big-game hunting or other activities in the study area.³²⁸ Interviewees corroborate accounts of past subsistence studies, namely that Nondalton hunters seek upland birds (e.g, grouse and ptarmigan) in two primary locations: close to Groundhog Mountain near the headwaters of Upper Talarik Creek and in the Chulitna River Valley.³²⁹ Gary Alexie and Ada Trefon also identify Boys Mountain and Girls Mountain as important spruce hen hunting areas.³³⁰

Many other types of birds were formerly hunted in the study area, but have become less popular in recent times. Recalling that snipe were once hunted for food, Jack Hobson observed: “We don’t eat them, long ago they used to eat like snipe, those snow birds too, but nowadays they don’t eat that” (JH). Similarly, a number of Nondalton families have reported traditionally gathering seagull eggs from nests on grassy islands on lakes—Lake Clark and others—and opportunistically along the Chulitna River riparian zone.³³¹ Yet while egg collecting was once done as a springtime activity, very few Dena’ina families gather eggs today. To the extent that this is done, Chulitna Bay and the lower Chulitna River flats are common venues. Feathers too have been used in traditional clothing and regalia, still sometimes gathered for cultural purposes in the area.³³²

Fishing & Fish Camps

Salmon Fishing In Inland Dena'ina Tradition

When the salmon return to spawn in the Lake Clark Basin in late summer and fall, all of life changes. People and animals alike converge to witness and take part in one of the largest wild salmon migrations on the planet. For inland Dena'ina families, the arrival of the salmon is a time not only for harvesting a large part of the year's foodstuffs, but for celebration, sharing, and reunion with family and friends. Village residents, as well as those who have moved away, reconvene in the summer and sometimes the fall, not only to harvest and preserve salmon in quantities sufficient to sustain each family, but also to fulfill personal emotional, cultural, and social quotas—a subject addressed in more detail in a later section on Nondalton Fish Camp.

Sitting at the upstream end of a vast watershed that enters Bristol Bay, the Lake Clark Basin is truly a global epicenter of salmon production: "One of the largest salmon runs in the world enters Bristol Bay each summer and many of these fish find their way up the Kvichak River into Iliamna Lake and the small streams tributary to it."³³³ The subsistence salmon harvest from this run is enormous. In recent decades, families have stocked up on fish that is dried, canned, and otherwise preserved in remarkably quantities: the average number of salmon harvested by each family is between five and six "bundles" totaling between 200 and 240 fish (one bundle equals 40 fish).³³⁴ Over recent decades, the number of salmon harvested yearly has declined because families no longer support dog teams.³³⁵ Yet the harvest remains a cornerstone of the diet, and of social, cultural, and economic life within the community. Nondalton Fish Camp, in particular, is a place where cultural and social values are reaffirmed and transmitted through intergenerational cooperation and the redistribution of the harvest within the Nondalton community.

Salmon are harvested during two distinct periods of the salmon life cycle: during spawning in the summer (*k'yq'uya*) and after spawning in the fall (*gh'elica*). The *k'yq'uya*, or "bright" sockeye salmon (*Oncorhynchus nerka*) return to the Chulitna Basin waterways from the middle of June to the end of July. This is the summer run. "The summer run of sockeye salmon into Sixmile Lake and upstream into Lake Clark traditionally broke the spring season of hunger for the Athabascan people of this area."³³⁶ Peak catches of *k'yq'uya* occur in late June and the first week of July, when Nondalton Fish Camp is at its peak. Other species including King, or Chinook, salmon (*Oncorhynchus tshawytscha*) are caught occasionally around Lake Clark during this time, though sockeye salmon are the mainstay subsistence species.³³⁷ Historically, those who sought other species of salmon often traveled to distant locations to seek these alternatives at times not conflicting with Nondalton Fish Camp—often returning to ancestral village sites in places like the Mulchatna River Basin.³³⁸

A second salmon harvest begins in August and continues through October. These *gh'elica*, also referred to as redfish, "fallfish," or red salmon, are the sockeye so far into their spawning cycle that their skin turns deep red.³³⁹ Dena'ina consider red salmon "a delicacy...preferred by many older people because the flesh does not have the high oil content of fresh, bright salmon and is easier to digest."³⁴⁰ Commercial salmon harvests in Bristol Bay coincide with the *k'yq'uya* harvest in July. Thus, families that participate in the commercial salmon industry, or other employment causing them to be absent during Nondalton Fish Camp, may rely heavily on these later runs of *gh'elica* for winter food supplies. Some Dena'ina even harvest *gh'elica* as late as December, fishing through the ice.³⁴¹

The methods by which salmon are caught have varied through time. Historically, Dena'ina fishers employed *vef niqak'idezehi*, (seines) and *tuqesi* (spears) to harvest *gh'elica*, and *taz'in* (fishtraps) to capture a variety of fish species including salmon and species like whitefish, trout, grayling, and pike. As Ellanna and Balluta write, "Historically, both set and dip nets were made of spruce roots and sinew. King salmon were taken with a harpoon-like spear constructed with a head attached to a line and shaft—a tool referred to in Dena'ina as *dineh*."³⁴² Interviewees for the current study note that salmon were not only traditionally speared, but were caught using bow and arrow by some families (RD).³⁴³ (Fish wheels, a



Family and friends seining salmon together at Nondalton Fish Camp. PARAMETRIX PHOTO COURTESY NONDALTON TRIBAL COUNCIL.

technology introduced by miners at the turn of the century, were also sometimes adopted and used by Dena'ina families, but only for a short time.) Mary Hobson remembers a time when her grandfather used traditional fish traps to catch sockeye salmon. Every morning, the trap would be emptied, and it was her and her mother's responsibility to transfer the catch to the smokehouse:

“My grandpa and them put up the fish trap in the water, walk in the water way out: put it up, the fish trap. And every morning you have to walk over there, that fish trap right in the beach and lots of fish in there. And put it back—see that fish box and they use the bait. ...Put lots of fish in there, that canoe... They were small. We had to drag that fish...[to her mom at the smokehouse] a long ways. Drag that fish. Every morning drag that fish...” (MH 1998).

Today, salmon are especially harvested using gillnets and beach seine nets. Prior to January 2007, only gillnets were permitted in Lake Clark area waters.³⁴⁴ At Nondalton Fish Camp, gillnet operations follow a regular rhythm:

“One end of each set gillnet was anchored to their boat dock on Sixmile Lake, and the nets were stretched by using the family’s skiff. In 2007, the first set of the season occurred late in the evening, and the net was pulled early the next morning. ...After the first set, nets were then set in the morning and pulled a few hours later, in the late morning or early afternoon. ...[Before picking the nets] the gravel beach was raked before the nets were retrieved so that sticks or other shoreline detritus did not tangle the lines.”³⁴⁵

Once the salmon have been picked from the net and thrown in the boat, they are transferred from the boat to a fish box or *k’usq’a*—a wooden frame wrapped in chicken wire.³⁴⁶ The box is placed in the water where salmon are kept cool and inaccessible to flies and other insects. Here, they remain until further processing onshore.

Salmon are then transported to processing stations at camp where they are cleaned and prepared to be smoked, fermented, frozen, vacuum packed, or some combination of these techniques. Historically, most fish camps have a smokehouse on site, and modern Nondalton Fish Camp has several—each owned by a family or group of related families. When preparing salmon to be hung in the smokehouse, the pelvic fins are removed and the fish is split from head to tail, through the belly, to be hung on smoking racks.³⁴⁷ A Nondalton resident describes the process:

“When they catch the fish, they clean it [and] they save the fish, even the fish fins. The heads they split them and dry it, everything, only thing they throw away is a little bit of the guts—that’s all. They cut the belly fin off and hang it in the smoke house to smoke and dry, the eggs, dry them, now we salt them, them days we used to hang it in the smoke house to dry. Dried eggs are good eating.”³⁴⁸

Once dried, salmon eggs are easily transported, a popular traditional food eaten while hunting or traveling. A Nondalton resident observes “They use that (dried fish eggs) for hunting too, [for] survival. They use to take a little piece of dried salmon eggs [and] put it in their pocket or grub box, mostly for survival, little piece of fish eggs and dry fish they keep in their pocket.”³⁴⁹

In most Dena’ina households dried fish is a staple. Traditional salmon-based cuisine is quite diverse, reflecting its centrality in the culture and diet of inland Dena’ina people. Historically, dried fish was often consumed with bear fat or seal oil secured through trade with residents of the Kvichak River area.³⁵⁰ Salmon were often placed in a subterranean cache, buried underground in a pit layered with spruce bark or moss or both, sealing the fish from the air. Ruth Koktelash

explained the process of cache placement in Evanoff and Ravenmoon: “They put the white moss on top real thick and then they bury it, they look up in the sky for the clouds. If there’s a cloud in the sky over the hole, that’s when they bury the place.”³⁵¹ The salmon remained cached at these fall camps until freeze-up when they were dug up and transported to winter villages or trapping camps to be consumed by people and their dog teams.³⁵² Fish were also “freeze dried” on the beaches in cold weather.³⁵³ Fermentation is also a common preservation technique—resulting in such traditional foods as “stink heads,” the fermented heads of salmon.³⁵⁴ The fermentation process is also used as a means to extract oil from the salmon. Gladys Evanoff describes how grease is traditionally rendered from the salmon and how this product was used as a waterproofing agent:

“And they make grease out of that fish heads you know, they put bunch of fish on a string and put it in the water until it’s kind of get soft, sour, fermented then they put it in a pot and boil it and the grease gets on top the water and they save the oil for skin, you know, tanning skin or winter boats or say shoe packs with leather on it. They put the grease on it for waterproofing. They use that oil for water proofing and I’d seen my grandma use it, it’s just like Wesson oil, it’s just clear. I never see anybody do that anymore though” (GE).

Inland Dena’ina also made many types of dog food from salmon. One common type was made by fermenting the fish. As Gladys Evanoff recalls, “they ferment them in the water or they put it in the barrel for dog food; when they ferment it, they just use it for dog food in the spring time cause it turns like water so they, it’s like soup, they feed it to dogs and it has fat on it too” (GE).

Modern fish processing has taken advantage of a range of new materials. Canning has been a longstanding technique for generations. As freezers and electricity arrived in Nondalton in the later decades of the 20th century, fish processing went upscale, with salmon being vacuum packed and then frozen. At least one family from Nondalton “include[s] fresh fireweed blossoms with some fillets before sealing the plastic bags with a vacuum food sealer (‘vacuum packing’), for an aesthetic reminder of summer on the winter day that the package would be opened” (Fall et al. 2010: 56).

The salmon harvest draws on intimate knowledge of fish migrations and spawning behavior. Dena’ina fishers possess detailed traditional ecological knowledge of salmon spawning, in which they can determine the movement of the fish based on water quality, temperature, and visibility. They must be familiar with dynamic bathymetry and topography of the shoreline where fishers can set and maneuver nets for the final harvest. As a result,

“The residents know the best location for using a seine net, taking into account such factors as fish behavior, changes in water levels, and changes in lake topography, or bathymetry. The Nondalton residents seem to prefer places where fish school, where a boat can be easily landed, and where the water is shallow enough for people to stand in. Annual changes in lake water levels must be accounted for.”³⁵⁵



Subsistence salmon drying rack of Butch and Pauline Hobson, near Chulitna Bay. DOUGLAS DEUR PHOTO.

This intricate knowledge of salmon and their localized habitats reflects a long and enduring relationship between inland Dena'ina harvesters and the salmon runs on which they depend.

As spring approaches, Dena'ina families begin monitoring water levels at known salmon spawning sites. Water level may determine the timing of the run. Salmon characteristically congregate at the mouths of rivers, schooled up, waiting for conditions to become optimal for spawning, at which time the fish begin to swim upriver. In the past, the Dena'ina speared salmon in these areas. Today, gillnets are positioned at the locations instead: "Once netting materials or commercially made nets were available, sockeye were taken with gill nets on lakes or at the mouths of rivers where the salmon had schooled up for spawning or in readiness for going upriver to spawn."³⁵⁶

Over the centuries, the locations of fish camps have been established based on intimate knowledge of fish behavior and migration. Such camps were created at places where salmon were known to be predictable, in places where families had both easy physical access and rights to fish in the particular location.³⁵⁷ Also, the river was and is predictable in its characteristics—with harvesters wishing to avoid places with too much or too little current. Thus, Bill and Martha Trefon explain that "[t]hey pick where the current is or eddies where all the slime could wash away. Or where they think it is easier to set the net. ... You never see a fish camp where there is too much eddy. You choose it where the slime will wash away by moving water."³⁵⁸

As the salmon return to these camps each year, so too do entire inland Dena'ina communities. Historically, there were many salmon fishing camps distributed broadly throughout the landscape, each situated to take maximum advantage of the two-cycle salmon fishery in the Lake Clark Basin and its subbasins within the study area (see Table S1). During the fishing season, camps were historically located approximately one to two miles apart from each other.³⁵⁹ Families often moved between fish camps for many reasons—environmental, social, and otherwise.³⁶⁰ While many of these fishing camps have persisted in small ways, with individual families or groups of families using formerly large camps as fishing outposts, the use of many camps has declined. Multiple factors have contributed to this contraction, from a declining harvest associated with the loss of dog teams, to localized flooding; from the introduction of the outboard motor to rising gas prices; from scheduling conflicts with paid employment to the ease of ATV access across summertime trails; from increases in brown bear numbers to an increasingly complex maze of land ownership and regulation.³⁶¹

Cumulatively, the effects have worked to consolidate fish camps, and to draw them closer to Nondalton. Accordingly, inland Dena'ina families have increasingly concentrated their fishing in certain prime locations: first and foremost, Nondalton Fish Camp, discussed below. Transportation to and from Nondalton Fish Camp is easy by most measures, and allows people to "fish apart from the village" while still being close to all of the conveniences. As Nondalton residents attest, "In the past, ... every family member who was involved in subsistence fishing or processing stayed at the camp, but now more people stay in the village and commute to the camp."³⁶²

TABLE S1:

Salmon Fish Camps Reported In & Around the Study Area

Location	Dena'ina	k'q'uya (spring salmon)	gh'elica (redfish/spawned fall salmon)
Alexie Creek	Ch'qi'un	X	X
Brown's Slough (at the head of Lake Clark)			X
Ch'ghitalishla Vetnu (creek one mile south of Nondalton)		X	
Chi Point	Chayi Ch'dedlish Kiyiq'		X
Chu'gun'dagh (near Tuk'eleh)	Chu'gun'dagh		X
Chulitna Bay	Ch'alitnu Hdakaq'		X
Flat Island	Husuyghiqan Hni'	X	X
Horseshoe Bend	Ts'atenaltsegh	X	
Igiugig (the channel connecting Lake Clark & Sixmile Lake)	Nildink'et'a	X	X
Jimmy's Bay (small bay below Nondalton)		X	
Kijik Lake	K'q'uya Vena		X
Kijik River	Ch'ak'daltnu	X	X
Lake Clark	Qizhejh Vena	X	X
Landing (below Alexie Creek on the Newhalen River)	Niqanch'qentdeht	X	
Newhalen River	Nighil Vetnu	X	
Nundaltinshla (the lake-like area about six miles downstream from Sixmile Lake on the Newhalen River)		X	
One-Tree Island (near Flat Island)		X	X
Owl Bluff	Kijeghi Tsayeh	X	

Location	Dena'ina	<i>k'yq'uya</i> (spring salmon)	<i>gh'elica</i> (redfish/spawned fall salmon)
Petroff Falls (above these falls on the Newhalen River)			X
Priest Rock	Hnitsanghi'ty		X
Sixmile Lake	Nundaltn Vena	X	
Snowshoe Bay (next to Portage Bay)	Ush'K'itudghi'uty		X
Sucker/Hudson Bay	K'denez Y'itughi'u		X
Tanalian Point			X
Tanalian River	Tanilen Vetnu		X
Tazimina River	Nughilqutnu	X	
Tuk'eleh (creek south of the Kijik River)	Tuk'eleh		X

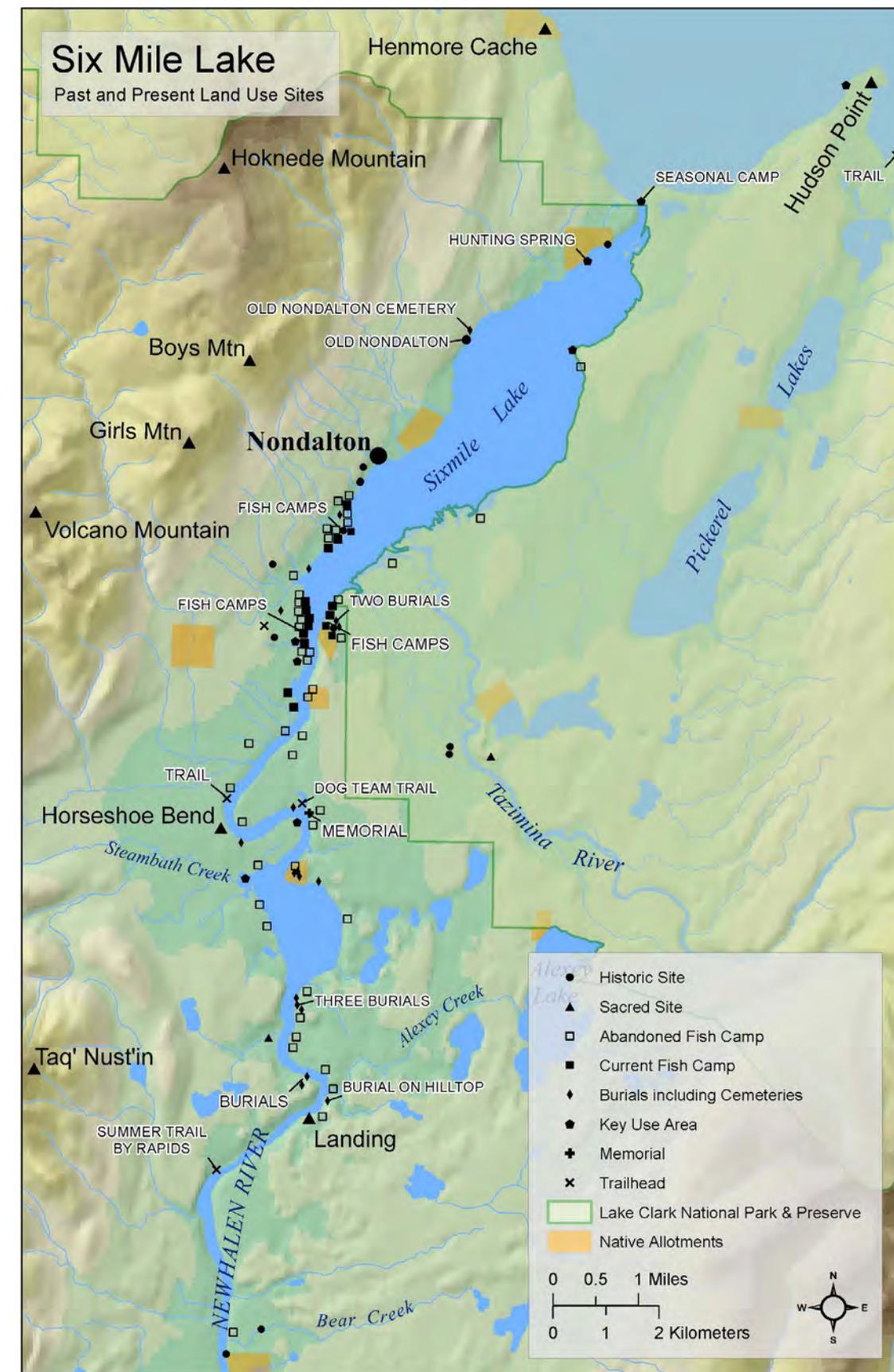
Data consolidated from interviews, Fall et al. (2010, 2006), Stickman et al. (2003), Behnke (1982).

As described above, when salmon begin to spawn, inland Dena'ina families transition from *k'yq'uya* (summer fish) to the harvest of *gh'elica* (fall fish). While Kijik is a popular place to return, many other camps in and around the study area are also revisited. *Tuk'eleh* and *Qahnigi Tunilen* (a creek into Chulitna Bay) are both reported as fall fish camps located at the mouth of the Chulitna River. Alex Balluta and his family camped at *Tuk'eleh* during the fall, generally arriving near the first of September to fish for salmon, and to hunt for moose, caribou, and black and brown bear. He reported that at “[f]all camp, we usually started to go about first of September. ... [Alex and his family would camp] up around Kijik [#411, *Qizhjuh*], it's not Kijik, it's the mouth of Chulitna [#449, *Ch'alitnu Hdakaq*]” (AXB 1986). Other camps are also visited in the area. Albert Wassillie, for example, fished for redfish at fish camps “all over the place. Snowshoe Bay...and Owl Bluff” (AW 1986). In another interview, he elaborated on these fall campsites:

“They're spread out all the way. Every year the channel changes, so the salmon is all over the place there in Kijik, in the fish ponds. ...The ponds further up [near Pickerel Lake]. We just had net on the outlet there. One net, you get enough fish. ...But all the fall fish we wanted you know. Boy there were a lot of fish” (AW 1985).

Priest Rock, on Lake Clark north of the Chulitna River confluence, also historically hosts a fall fish camp. During an interview, Melvin Trefon identified this camp: “sometimes we'll go up to Priest Rock which is around the point...and there's a creek in there that they mill around inside [the salmon] but Priest Rock is a real important fall fish camp area” (MT). Historically, some families have also returned to fish camps outside of the Lake Clark Basin, but close to villages now largely abandoned, such as the Mulchatna villages, or Turquoise and Twin Lakes areas, well north of the study area.³⁶³

MAP 8:
Six Mile Lake:
Past & Present
Land Use Sites.



Fish Camp, Salmon, & the Endurance of Dena'ina Culture

Summer salmon processing at fish camps, and especially Nondalton Fish Camp (*Nundaltin Q'estsig'*), is arguably the most important and enduring traditional subsistence practice found in the inland Dena'ina world. Situated at the outlet of Sixmile Lake where it enters Newhalen River (*Nughil Vetnu*), "Fish Camp" is not only a place, but as the name implies, an event, a practice, a temporary community, a way of life. Most fundamentally, Fish Camp is the venue for harvesting much of the salmon eaten by the inland Dena'ina community. As Olga Balluta summarized,

“The most important places is the fish camps. ...Fish Camp is important because that's where we put up our fish for the winter, for our winter supply of fish...that's the only time that we could put up our dry fish, and canned fish, and salt fish, freeze fish, and that's the important thing” (OB).

Elders like Gladys Evanoff explain that Fish Camp is first and foremost about the fish: “Putting up fish, getting fish, putting up fish, canning fish, drying fish, salting fish, freezing fish. Just my way of life, I love being a subsistence user” (GE). Asked what Fish Camp means to her, an elder born in the 1920s replied: “It's what we do every summer. It wouldn't be right if we don't do this.”³⁶⁴ Not only do families procure most of their annual salmon catch at Fish Camp, but they catch and share fish with the larger community, particularly those in need.³⁶⁵ While hunting, trapping, and gathering have been relatively mobile pursuits, with harvest areas located over vast areas and shifting somewhat over time, fish camps endure, located precisely on the same sites reaching back to ancient times. In spite of historical changes in subsistence economies, the purpose of Fish Camp remains the same. Its singular endurance as a place of cultural and subsistence importance is amplified relative to changes in other subsistence use areas.

Still, the catching and processing of salmon is but one of many functions of Fish Camp for the inland Dena'ina people. As all inland Dena'ina elders attest, Fish Camp means much more. It is a nexus of fundamental social, economic, cultural, and spiritual events for the entire community. Fish Camp is where families and friends regroup for shared work, eating, and socializing. As an event, Fish Camp marks a time when families come together, even if separated by many miles and life circumstances. As such, it is for Dena'ina people “like Christmas or Thanksgiving...all rolled into one,” a pivotal moment in the year, rich with family visits and alternating cycles of work and play.³⁶⁶ The time of Fish Camp is met with anticipation and excitement, especially by children: “In Nondalton, the parents of one family said that it was their children who gave the impetus to travel early to the fish camp every year.”³⁶⁷ Even teenagers look forward to the return of summer and Fish Camp:

“In the darkest, coldest days of winter, they [her teenage respondents] exclaimed their eagerness for the return of summer and warm days spent at fish camp. They anticipated spending fun time with family, eating 'tasty' fish, and swimming in the then-frozen lake.”³⁶⁸



A waterfront view of that part of Nondalton Fish Camp lying on the east bank of Newhalen River. DOUGLAS DEUR PHOTO.

During the fish harvest, much eating, visiting, and shared labor transpires, as well as moments of gender-differentiated time allowing for moments of “men's talk” or “women's talk” throughout the day. Shared labor affords space to catch up on family and community news, and to teach children fishing skills and other traditional knowledge. Intergenerational reminiscing and the sharing of family lore and history take place, as well as public displays of humility, respect, and thanks-giving for food received—food that will sustain families in the year ahead as it has sustained the ancestors for generations. “Fish Camp gives back—it's not just taking fish...but you have to be here for the whole month to really get that benefit” (KE). A key facet of Fish Camp is that work is not an activity separated from family and social life; work and social life are integrated. In fact, valuing subsistence-related “work” only as utilitarian is viewed as dysfunctional and inconsistent with traditional practice.

Participation in the multigenerational event of Fish Camp, centered on the salmon harvest and situated in a specific, meaningful place, helps to maintain the integrity of Nondalton community and culture in a distinctive way. With elders, adults, and children gathered together for shared labor and social time, Fish Camp facilitates the transmission of deep cultural knowledge, reaffirming the ecological, social, and cultural values that define the inland Dena'ina people. “Fish Camp is important. It is a sacred place and we enjoy it. It is part of what you do” (GE in Parametrix³⁶⁹). In many respects, Fish Camp is key to inland Dena'ina identity and to the survival of the inland Dena'ina as a people.

Today, Nondalton Fish Camp represents a continuation of traditions that predate widespread movement out of Kijik Village. Prior to that move, fish camps on Kijik River and along the shores of *Qizhjuh Vena* (Kijik Lake) were perhaps the best known and most culturally significant fish camps in inland Dena'ina territory. Elders such as June Tracy shared their memories of rich oral traditions regarding the fish camp at *Qizhjuh* and its significance:

“Everybody go up to Kijik Lake and they have a fish camp there. He [June’s father, Nicholia Balluta] said everybody goes up there and they put all their food and fish away. And, you know, they’re cooking their fish heads and tails, and they’re baking fish and they holler one kind of word and everybody gather around to eat their lunch and you know, then go back to work again. So, you know, it was a community effort. Everybody worked together and at that time it was to save food, you know—to save” (JT).

Those who remembered the Kijik fish camps at their peak celebrated “the good times had, the skill needed, the aching backs, and the glow of satisfaction when seeing many ruby colored fish neatly hung on the drying racks” (BIA #AA-11838:184).³⁷⁰ The convergence of people in the area, in part to participate in fish camps, is the origin of the name *Qizhjuh* (and its derivative spelling “Kijik”), which means a “place where people gather.” The importance of the site is well-documented even in early non-Native historical literature of the region.³⁷¹ Fish camps were central to the identity of the village complex known as Kijik—the largest Athabaskan village complex in Alaska and now the center of a National Register district known around the world. In turn, this village has long been central to the identity of inland Dena’ina people, placing the fish-camp experience at the heart of inland Dena’ina ethnogenesis.

While the location of Nondalton Fish Camp was used for countless generations as a fishing station and fish camp, it was the abandonment of Kijik in the early 20th century that gave the place its singular importance in interior Dena’ina culture and subsistence. As people consolidated on the lower Lake Clark and Sixmile Lake areas, so too were fishing activities moved southwestward, consolidating in and around Nondalton Fish Camp—a location where fish congregate as they enter Sixmile Lake and, by extension, the entire Lake Clark Basin. Flooding at the historical fish camp site caused minor relocations of camp structures during roughly the same time as the epidemics, but in a way that preserved the geography of Nondalton Fish Camp.³⁷² Commercial fishing operations on the Kvichak River drainage below Lake Clark had profound negative effects on the salmon populations in the study area historically, contributing to the concentration of salmon fishing at the most predictable locations—Fish Camp being foremost among them. Oral traditions speak of salmon crashes in the 1920s, only a few years after the relocation from Kijik to the lower end of the Lake Clark Basin. This served to consolidate fishing at the outlet of Sixmile Lake, one of the most predictable places to catch salmon, and a narrows through which all Lake Clark Basin salmon pass. Additional camps are strung along the banks of the Newhalem River approximately six miles between Fish Camp and *Nundaltinshla*, though many of these camps have combined with Fish Camp.³⁷³

This is not to say that older fishing areas were no longer used at this time. Kijik River continued to be utilized, for example, especially for redfish *gh’elica* (sockeye that are turning red)—as it is today. *Gh’elica* is eaten fresh or spit- and sun-dried when the weather is cold enough, with the dried fish being called *nudelvegh*. Sockeye begin arriving on the lower Kijik River just as salmon are tapering off at Nondalton Fish Camp, so that families who fish Kijik River often travel by boat to the Kijik area after Fish Camp activities come to a close. As Nancy Delkettie summarizes, “Kijik: you know we go up there in the fall time, like, October, November, when we get fall fish. ... There’s a few people, quite a few people that still go up there, get their fall fish” (ND). Cumulatively, this adds to the breadth and richness of the inland Dena’ina diet while also reaffirming connections to a key ancestral fishing area. To this day though the importance of the Kijik fish camps has diminished somewhat, *Qizhjuh* arguably remains the most important culture historic site in the Lake Clark region to the people of Nondalton, and to others throughout the Dena’ina world.

Today, many Dena’ina families eagerly anticipate the arrival of summer as an opportunity to gather for Nondalton’s Fish Camp. Fish Camp has always held significance as a place and time of gathering, bringing together people from across the region. Time at Fish Camp is said to be the peak social gathering of the year, when families converge—even those

scattered to urban Alaska and beyond. In past centuries, summer fish camps served to gather diffusely settled and highly mobile groups at times and locations where the salmon also gathered, to cooperatively harvest fish in quantities to provide for the community. This pattern persists and is even expanded today as Fish Camp still brings people together, including inland Dena’ina who have relocated to other communities and urban centers in search of employment and education. Some Dena’ina families who travel back to Fish Camp to take part in the summer salmon harvest and processing, at times traveling over vast distances, are returning home from places like Anchorage or beyond.³⁷⁴ As Gladys Evanoff observes of Fish Camp, “it is... important because it is when the family comes to town and comes together to help each other and that is sacred. People come in from all over to fish camp and a lot of years it is the only time of year when families all get together anymore.”³⁷⁵ In addition to being a key social event, it is sometimes said that only Fish Camp salmon from Sixmile Lake “tastes right,” meaning the salmon is more physically and spiritually nourishing than that obtained in distant places.³⁷⁶

Still, the movement of families beyond the Lake Clark region, and their integration into non-subsistence economies, has had enduring effects. In times past, families stayed at Fish Camp through July and August, catching and processing fish, putting up food in caches, and slowly closing camp at season’s end. Through the 20th century, however, as a growing number of men found work as firefighters, commercial fishermen, cannery workers, and in other fields, Fish Camp became a more feminine space—increasingly (though certainly not exclusively) maintained by women rather than a cross-section of the tribal community. This has changed the dynamics of Fish Camp a bit as women watch children while also catching and processing fish, locating and splitting wood, and carrying out other tasks. Though children always played an important role in Fish Camp life, their assistance in fetching firewood and fresh water, for example, has become increasingly important when men are away. Today, time at Fish Camp is compressed between other obligations, including job obligations, of modern Dena’ina families. It is now unusual for anybody to stay past the end of July.

The physical layout of Fish Camp reflects both the practicalities of fish processing, and the social and cultural customs related to that work. An intricate trail network has traditionally linked residential cabins with smokehouses, drying racks, and other work areas. Elderly women like Agofia Evanoff, a blind elder of the early to mid-20th century, were said to maintain by hand the network of Fish Camp trails between individual family fish camps. Each family has at least one small cabin at the camp, while some extended families have several, grouped together around a common space used for food processing, eating, socializing, and other activities. Interviewees report that there were more cabins or tents at Fish Camp in the mid-20th century than there are today, though the spaces have gotten larger in recent times, accommodating families as well as their modern conveniences—cooking stoves, cupboards for food and clothing, and the like. In addition to wooden cabins, many families used wall tents throughout the 20th century. Steam bath structures are located near many cabins and former tent sites as well.³⁷⁷

Smokehouses are always located close to the water to facilitate easy transport of fish to and from the buildings. Structural poles for new smokehouses are cut from timber west of Fish Camp. At one time, these were cut from the tops of straight alder or birch, though now other woods are used. In constructing a smokehouse, shallow rectangular pits are dug and filled with gravel, and planks are placed around the frame and foundation. Historically, smokehouses were also made with cut alder or birch branches woven together between structural poles; poles are also set in the smokehouse to suspend drying fish, with fresh poles sought out each year in places throughout the study area. As Melvin Trefon recalls,

“From Fish Camp...we end up going to places on the lake, that I try to go where nobody go for wood, we need these fresh poles so we’ll go look for them, 3, 4" poles, we call it *untun ze’* [fish rack poles]... for smoke house... for poles that lay across that we use for fish. ... Sometimes we go way up Chulitna to find good poles in quantity to find good smokehouse poles. And we go up the river across to *Nughilqutnu* [‘flows down on surface stream’, *Tazimna*] for poles and wood over there...” (MT).

Families maintain the smokehouses for many years. At times, for generations. Yet if the structures become dilapidated, families build new smokehouses over the same footprint and foundational pit, ensuring a long period of site occupation and use. Multiple families often shared the same smokehouse, allocating separate spaces inside, or using the smokehouse at different times during the salmon runs. To keep the smokehouse floor clean, gravel is spread that can be replaced each season. In early July, the gravel is gathered from an adjacent beach, while old gravel, with its patina of fish oils and charcoal, is tossed back into the water. When the smokehouses are not in use, poles are stockpiled in the structure, and seasonally, when it comes time to prepare a smokehouse for use, families open and air out the building, cleaning everything for the task ahead. "I used to go there as soon as school was over. I'd take dogs, fill the boat up with kids. Go down there and collect wood, clean up the camp" (GE). Wood is gathered along the beach, but is also cut in the woodlands to the west of the camp.

In the past, people maintained large fish caches at Fish Camp: "whenever you needed some [fish] you just came with dogs and got some fish from your cache" in the wintertime (GE). The cache structures were rectangular, with walls roughly 8 to 10 feet long on a side, suspended on high log pilings to keep the cache above the reach of animals like bears. Most families were said to have maintained these structures at Fish Camp. Their use only ended in recent decades, as fish are now transported directly to peoples' homes for storage.

On the edges of Fish Camp are "bone racks"—used for drying the salmon bones with a thin amount of flesh, formerly dried in large quantities for sled dogs. The bones of two fish were ordinarily tied together to dry over long horizontal poles, upside-down so the blood drained completely. Historically, twine pulled from gunny sacks was used to tie the fish. "You had to put up a lot of fish just for dog food—that's a lot of work!" (GE). In the absence of sled dogs in recent decades, these bone racks are in stages of decay, a persistent but steadily eroding landmark of a bygone time.

Aside from fishing and preservation tasks, much teaching occurs at Fish Camp, including the teaching of traditional values through both positive and negative reinforcement, and the discussion of protocols relating to respect, reciprocity, and other themes. In some families, Fish Camp is the main place where cultural knowledge is imparted. It is arguably during Fish Camp that individual and community identity as inland Dena'ina people is actively reaffirmed, and traditional ecological and cultural values are transmitted to the younger generations. Prior studies have likewise concluded:

// Fish camps are clearly a context in which traditional skills and knowledge are applied, shared and learned. The camps were a social context even for young children, a place to learn traditional knowledge, skills, and values. ...By observing and listening, and through...play at the camp, he [a three-year-old at the fish camp] learned not only



A "bone rack," formerly used for drying fish for sled dogs, Nondalton Fish Camp. DOUGLAS DEUR PHOTO.

empirical skills, such as how to count, but also work ethics, respect for the environment, and other cultural lessons, all through the daily rhythm of life at the camp.³⁷⁸

Engaged in these activities, people connect with memories of family members no longer living who taught them the skills and mechanics of fish harvesting, sharing those memories with younger members of the tribe.³⁷⁹

As part of this cultural practice and education, special respect is shown to salmon arriving at Fish Camp. The salmon are traditionally greeted with a "First Fish" ceremony, done to honor the first salmon to return, and to show other fish they will be respected by the people waiting to catch them. Gladys Evanoff describes the First Fish ceremony as she remembers it being practiced, saying,

// The first fish, they take it and cook it and everybody have a little taste of the fish, they eat everything, the bones the guts inside, this sock part they call guts, they cook that, the liver, the eggs, or the sperm you know cause it's white, they cook that and the head, the only thing they take out is the gills. They cook the bone and all, all the fins" (GE).

Mike Delkettie explains that without these measures of respect, the salmon would fail to return in sufficient quantities:

// There's one thing I miss that they used to do a long time ago...the first fish that they caught they let everyone have a taste of that fish. Even if it was just the juice of that fish. We really have respect for that salmon. And they said, not seeing the salmon was the other eleven months without it. You must remember that, because they were talking about really harsh cold



Karen Evanoff, teaching her son to process fish correctly, Nondalton fish camp. DOUGLAS DEUR PHOTO.

weather and then therefore you gotta have respect. ...If they have a lot of respect for the salmon, more will come” (Stickman et al. 2003:47-48).

Mary Hobson remembered the first salmon of the season being celebrated with a traditional potlatch where calico fabric, money, and other gifts were given to guests.

The First Fish ceremony persists in abbreviated form today, continuing to sanctify the harvest, convey core cultural values to tribal youth, and honor the sacrifice of fish communities that have sustained Dena’ina families since time immemorial. Historically, even commercial fishing seasons in places like Bristol Bay have been delayed until Fish Camp begins, not only because fisherman need subsistence fish, but because of beliefs they should not fish until the First Fish ceremony has been observed.³⁸⁰

Though the ceremony has declined in recent generations, it persists in attenuated form: “They still kind of do it, but in a smaller way” (KE). This traditional practice has been integrated with Russian Orthodox traditions in ways that appear seamless. Once families arrived at Fish Camp they traditionally “smudged” the fishing gear and structures with smoldering native plant materials to cleanse the gear materially and spiritually for the task ahead—“to keep spirits, mean things away...to keep bad things from happening” (GE). In recent generations, they begin the ceremony with Russian Orthodox prayers and a burning of incense inside the smokehouse as well as inside and around the other structures of the camp. Traditionally, upon returning to camp, the ggis ritual was performed. This ceremony includes throwing wild celery peelings into the water to signal to salmon that people have only greens to eat and are hungry, and that salmon need to return to feed the people. A few families still observe the ggis ritual: “sometimes we’ll start from the village and we’ll go up the mountain, we’ll go up Women’s mountain, the bluffs and there, and we’ll pick some plants we call ggis [‘wild celery’ grows at the base of mountains], and it’s wild celery, we’ll go up there in the summer and that starts off our summer fishing” (MT).³⁸¹

As the fish arrive, each step in processing fish is carried out with a certain protocol, to demonstrate respect to the fish: “You have to cut your fish the right way. If we don’t they might not come back” (GE). Not only would this be offensive to the fish, but it can result in fish tasting badly, not preserving well, or having other problems. In living memory, elders were said to yell when people cut fish wrong, and even to prevent offenders from cutting fish again that season. Some families still have a main family fish cutter who is appreciated for their skill and meticulousness, and for showing all due respects. These people sometimes begin their training in the proper cutting of fish by working with trout, as “it is not right to just start learning on the salmon” (KE). Fish are cut in different ways for different kinds of cuisine, much of it in dried, smoked strips, but some smoked as “flatfish” with fillets held open using sticks to keep them flat.

Even hanging the fish requires an observance of etiquette:

“You don’t hang it any way; they have to all hang it so the bellies all stick out, facing you—not any which way...that’s like some kind of respect, it’s like being mindful. So it’s the whole process: how you cut it how you hang it. ... We don’t let kids hang it. That’s like playing with it. We don’t waste fish” (GE).

In addition to protocols related to fishing and preserving, fish is smoked with wood said to be gathered with care, to avoid wastefulness and to demonstrate respect. Alder is especially favorful, but hard to find; birch is most common, and wet or even slightly rotten birch is also useful, producing ample smoke; cottonwood is said to be useful when the weather is hot. All parts of the fish are used—not just the flesh, but also the bones, traditionally dried and used as dog food, and the eggs, which are smoked and consumed. “There’s nothing they’d throw away—even the heads, they’d dry those in the smokehouse...soak them in water when they’re ready, eat those with oil” (GE).

Salmon is also redistributed in ways that are practical and partially ceremonialized to show respect to the salmon.³⁸² At one time this was done in organized feasts, especially giving symbolic portions to the elders assembled. As Olga Balluta recalled,

“Long ago, the first fish they got they would have a big potluck and invite mostly all the elderly people. Invite them to eat one little bit, even if they get just a little piece out of the fish they got. And they share that one fish with everybody, that is with the soups and all, pass it to everybody to have a drink out of the cup. That is how they used to do with their first salmon that they catch.”³⁸³

Mary Hobson also recalled that this was the practice at the end of the season, even in recent generations: “Whoever put up the most fish...make the potlatch and give one fish or half a fish to everybody. They share with everybody. They show their appreciation for how much fish they got.”³⁸⁴

Many community feasts still share the salmon in this way, less formally than before but in a manner ensuring broad consumption of Fish Camp fish. So too, families still redistribute part of their catch to those who made contributions to the harvest, even small or nonmaterial contributions, such as watching a child for a fishing family, bringing a lunch to fishermen, or interceding with fisheries officials. “When the fish is dry, we always share the fish, and we bag up fish to thank [others] for their help, to show thanks to those who have helped [in the harvest]” (GE). At least one family still maintains a seine net through much of the salmon run and shares the catch with those who cannot catch fish for themselves.

In addition to aforementioned cultural practices integral to Fish Camp, the camp also serves as a formal venue for the education of tribal youth in traditional skills, with elders setting aside time to demonstrate traditional craft or fishing skills to tribal youth, or to take part in evening storytelling. These practices formalize traditional teaching that has taken place at Fish Camp since time immemorial—the setting aside of special time for education in the context of hectic schedules for elders and children. In this respect, Fish Camp has become a counterpoint to two other formal venues for the teaching of cultural knowledge: Beaver Camp, held in late winter on the lower Chulitna River, where elders and youth camp together, and Kijik Camp. At Beaver Camp, knowledgeable elders such as Butch Hobson show tribal youth



Tribal youth from Nondalton preparing food for elders at Kijik Camp. DOUGLAS DEUR PHOTO.

how to trap beaver, maintain camp in cold weather conditions, skin and process beaver hides, and make traditional wooden crafts such as dogsleds. These educational events not only teach key survival skills to tribal youth, but are often transformative, helping children overcome personal hardships, find new purpose, and resolve to carry forward traditional skills or to remain in their homeland.

“Kijik Camp” technically “*Quk’ Taz’un* Outdoor Learning Camp,” is a separate formal event fostering cultural education, held later in the summer, involving a significant proportion of the youth from Nondalton. Gathered at Kijik, young people learn traditional crafts, stories, and aspects of Dena’ina history, including Kijik’s role as a precursor to the modern Nondalton Fish Camp. Tribal youth reconnect with this culturally significant place in myriad ways, forming or reestablishing lifetime connections.

Of the different educational events, only Nondalton Fish Camp continues to happen spontaneously, every year, and without the benefit of financial support to offset expenses. The educational events at Fish Camp are said to be “a calling” many elders feel they must heed. Timed to coincide with the peak salmon harvest, events are sure to have a good audience. Many young people miss Fish Camp, which is an enduring source of concern to elders. However, many more do attend, participate, and learn.³⁸⁵ For many, dedication to participation in educational events at Fish Camp reflects how Fish Camp’s physical space, and the activities associated with it, are held up as “sacred.” They represent a calling to the inland Dena’ina that is at once material, social, and spiritual. This sense of the sacredness of Fish Camp is pervasive. Its existence is not only documented by the authors of this study, but by past recorders. For example, summarizing the meaning of Fish Camp, Evanoff observes:

“It’s hard to put into words the feeling, the connection that ignites the spirit when it comes time for fish camp. It is an ingrained, unconscious sense that is felt when spring turns into summer. Fish camp is a communion with every aspect of putting up fish. It’s a relationship that has been created from birth, sensing when summer comes, it’s time to go back to fish camp. It’s the smell, the slime. It’s nature, connecting us back to the water, uniting us with each other. It’s knowing you have fish for winter, not only for your family but to share at potlucks and with other families. It’s a spiritual igniter that restores us with excitement after a long winter. It’s a part of life that’s not questioned—do we fish or do we not? It’s the contented labor of splitting fish, of stoking the smokehouse fire, and of taking care and pride in doing it the right way. This deep-rooted way of life cannot be measured, cannot be priced, but nor should it be overlooked in a study even though it’s beyond the visual and the spoken. It’s the observer’s intuition and open-mindedness, to be able to look beyond project objectives, that can possibly capture this meaning.”³⁸⁶

Even waiting for the salmon to return each year at Nondalton Fish Camp has been described as an “act of faith,” not only because of uncertainty, but because of the intersection with fundamental questions of Dena’ina existence, values, and survival.³⁸⁷ Similarly, when asked about the importance of fish camps, Gladys Evanoff replied:

“[I]t’s a sacred place we put up fish and we enjoy it once a year. ... [Fish Camp is] very important as a Dena’ina person. I don’t think we could go without fish for a year and like if we come here and there’s no fish what are we gonna do? ... We all work together here as a unit, family comes from all over to be together for this time. We work and commune, that in itself is sacred” (GE).

As the single place where key rituals are still practiced, and where families converge for shared work and play in an atmosphere akin to the high holidays of the Euro-Americans world, Fish Camp is a site of unparalleled cultural significance and value in the inland Dena’ina world. Though the camp functions as a subsistence harvest station, at its core Fish Camp is undeniably sacred, and a key venue in the intergenerational transmission of cultural knowledge for the people of Nondalton.

Freshwater Fish

While salmon fishing is focused on specific peak runs through the summer and fall, freshwater fishing is possible throughout the year. “What else do we eat? Trout, we fish for trout, Dolly Varden, whitefish and the whitefish, we dry it—smoke it in the smoke house. All year too, all seasons we fish.”³⁸⁸ While freshwater fish may not be a staple in the same way that salmon, moose and caribou are, they are an important supplementary part of the diet, often filling the gaps when other species are unavailable or in short supply. Not only is freshwater fishing important to the diet, replenishing immediate food supplies and filling freezers for later use, but freshwater fishing is simply a task many inland Dena’ina enjoy: “Obtaining these [freshwater] fish during all seasons was also a source of considerable pleasure, according to accounts of informants.”³⁸⁹ These fish are still consumed widely within the Nondalton community and provide yet another incentive to use and revisit places within the study area throughout the year.³⁹⁰

The diversity of inland Dena’ina freshwater fish harvests are impressive, in and around the study area: Arctic grayling/*ch’dat’an* (*Thymallus arcticus*), burbot (also known as lingcod or lush)/*ch’unya* (*Lota lota*), longnose sucker/*duch’ehdi* (*Catostomus catostomus*), Northern pike/*ghelg uts’i* (*Esox lucius linnaeus*), Dolly Varden/*liq’a k’qen* (*Salvelinus malma*)³⁹¹ and Arctic char (*Salvelinus alpinus*), lake trout/*zhuk’udghuzha* (*Salvelinus namaycush*), rainbow trout/*tuni* (*Oncorhynchus mykiss*), mountain or brook trout (*Salvelinus fontinalis*), humpback whitefish/*q’untuq* and round whitefish/*telay* (generally referred to here as ‘whitefish,’ also referred to as ‘least cisco’), and freshwater herring/*ghelguts’l k’una*.³⁹² Blackfish, sucker, sticklebacks and ‘bullheads,’ a species of sculpin, are potentially useful fish species during times of famine but are not ordinarily consumed by Dena’ina people. Once harvested, freshwater species are eaten fresh (fried or boiled), preserved for later consumption by humans and dogs (dried or frozen), or used as bait.³⁹³ Rainbow trout, for example, are caught in the spring and dried for winter. Grayling is sometimes used to make fish *nivagi* when mixed with berries and oil.

“Trout,” or *shagela*, is a term commonly used by Dena’ina fishers to describe nonsalmon species such as rainbow trout, grayling, Dolly Varden, and lake trout.³⁹⁴ Under the term *shagela*, inland Dena’ina often make a distinction between lake trout and *dghili chuna* (mountain or “brook” trout).³⁹⁵ Lake trout spawn in gravel-bottomed lakes and rivers, and do not migrate. Krieg reports that “[d]uring times of open water, lake trout are usually found past the edge of deep, underwater drop offs [in lakes].”³⁹⁶ Alternately, Nondalton elders describe *dghili chuna* as migratory trout that spawn in clear water streams in October and November, harvested at higher elevation creeks running from the mountains into Lake Clark and Sixmile Lake and taken in these types of landscapes throughout the study area.³⁹⁷ These *shagela* and other freshwater



Steambath Creek, one of several traditional freshwater fishing areas for shagela (trout) and other species. KAREN EVANOFF PHOTO.

species contribute to the diet of the Dena'ina throughout the year, though they are subject to more intense harvesting during winter and spring months. Traditional beliefs suggest catching these fish can cause rain to fall, but that rain can be stopped by placing grass in the mouths of captured trout (GE).

Freshwater fishing techniques vary significantly, depending on the species, location, and timing of the harvest. In winter, fishing for Arctic grayling, mountain trout, burbot, and Northern pike is common. Residents actively fish throughout the winter: "as long as the wind was not too cold, there were always people fishing."³⁹⁸ Ice fishing remains popular. In the past, Arctic grayling were caught through the ice using a snare fashioned from an eagle feather attached to a stick that was lowered through the ice. Agnes Cusma explained the method:

“Snare for fish. We're not talking about rabbit snare. It's a snare they make it out of eagle feather, the wing. We kill squirrels with that, too. Same as squirrel snare. That wing is tied to the end of a long stick and we put it through the ice and the bait is there and you watch it with the snare. As soon as you see that fish go in there, you pull him out.”³⁹⁹

Another fish species harvested in winter, most commonly at night, is burbot. Clyde, a lifelong resident of Nondalton, recalls that burbot were sometimes caught during the day, though this was rare.⁴⁰⁰ In the past, Nondalton residents fishing for burbot lowered basket-like traps into the water to be left overnight and pulled up the next morning. Ellanna and Balluta describe the method: "spruce roots were woven into a kind of basket which was placed under water or ice

with a long pole. When it was felt that the basket-like device contained fish, it was pulled up from the water or from under the ice in winter months."⁴⁰¹ Burbot is also most often harvested using an overnight set line or while jigging through the ice. According to Nondalton fishers, they are best caught "after freeze-up, when the ice is strong enough to walk on, and into springtime."⁴⁰² Krieg relays that "a younger, active Nondalton fisher reported harvesting burbot using an overnight set line with just one baited hook. Another elder said he harvested burbot off the bottom while icefishing."⁴⁰³ Older methods are echoed in modern ice fishing, but have been largely supplanted by modern techniques and materials, including synthetic fishing lines and hooks.

Winter ice fishing locations are generally located close to Nondalton, so that Sixmile Lake is a focal point of these practices today—popular for grayling, lake trout, whitefish Dolly Varden, rainbow trout, pike, and other species throughout the season.⁴⁰⁴ Areas along Lake Clark including Chulitna Bay also continue to be important fishing sites for Nondalton residents during winter months.⁴⁰⁵ Many species are taken in Chulitna Bay, but Northern pike is mentioned often—a fish sought as soon as the ice of the bay is safe. "Several people [in Nondalton] described that in years when the lake ice is safe, people gather in Chulitna Bay to harvest pike while ice fishing, often in March."⁴⁰⁶ Moose, caribou, or whitefish are often used as bait.

During the springtime, from March until fall, most fishermen rely on hook and line to catch trout (lake and mountain), some using salmon roe for bait. Nondalton fishermen use nets when harvesting suckers and Northern pike, as suckers in particular will not usually bite hooks, making nets necessary. The harvest of suckers used to be greater historically, since they were a popular food for dogs (RD, RK).⁴⁰⁷ Nets are also used when harvesting whitefish (humpback and round) and candlefish. According to Clyde, a lifelong Nondalton resident, whitefish are harvested about one month after the arrival of Arctic grayling.⁴⁰⁸ While another Nondalton fisher notes: "'candlefish' or round whitefish were caught year around, but there are more in March and April."⁴⁰⁹ For reasons relating to the movement of glacial water in Lake Clark, fishing in and immediately around Lake Clark tends to move from north to south from spring through fall, while fishing on tributaries and small lakes can occur at any time through the year.⁴¹⁰

Fixed fish traps, long a part of the inland Dena'ina toolkit, are still sometimes made by Nondalton residents to catch fish in spring through fall. These are constructed to catch burbot and other freshwater species, using only native materials. The size, placement, and configuration of the trap is customized and sometimes adapted to target whatever fish species might be available at the time. As Rick Delkettie notes,

“There's no imported materials. Just used from onsite. And then [built] this way too you could discriminate: you might get several different kinds [of



Ice fishing on Lake Clark. NPS PHOTO / M. RAVENMOON.

fish] and all the sudden you just want one. Then you're going to let most of them go. ...Then once you were all done you could leave it open, or dismantle it altogether" (RD).

A 1959 State of Alaska ban on the use of fish traps significantly curtailed this practice, though it does persist in some settings.

These traps were considered imperative at times when large numbers of freshwater fish were required to offset shortfalls of other staple species. Explaining this point, interviewees note that inland Dena'ina observed occasional crashes in salmon populations historically. People responded by a quick change to other species, such as suckers, burbot, and trout. They mobilized to freshwater fishing locations and harvested fish outside of their customary seasons using set nets and traps. Clarence Delkettie recalls oral traditions of one such event affecting people at Nondalton Fish Camp and beyond:

“It was quite a while ago, in 1920 or 30s, they didn't have no salmon come in one of those years or two. No fish, salmon fish, showed up so they put up trout, you know; they set their net up for white fish like trout and pikes and stuff. And they put that up for dog food. ...They would go to an area where there's more trout like Pickerel Lake over there and then there's lots of pike and fish and there's white fish up there. In fact, my mom, on my mom's side of the family, her dad was...from Lime Village. Up in Pickerel Lake there he had fish traps there in the creek. He made his own fish trap to catch fish” (CD).

Freshwater fishing camps are strategically located fishing sites that make the most of the diversity and distribution of fish species. These were generally positioned near waterways where fishing could occur concurrently with nearby hunting, trapping, and plant gathering, especially in the spring. Many, perhaps most, of the traditional camps have been concentrated within the study area—along the lower Chulitna River and Chulitna Bay areas, as well as on Sixmile Lake⁴¹¹ and other nearby lakes and waterways. Ellana and Balluta list a few of these camps:



Long Lake, a traditional hunting, trapping and fishing area, and often the venue for seasonal camps. KAREN EVANOFF PHOTO.

“For the Dena'ina of the Lake Clark area, the most important spring camp sites were distributed along the Chulitna River from Nikabuna [Nicovena] and Long lakes, Caribou Creek or the Koksetna River, Chun Talen (the south fork of the Chulitna delta), Hulehga Tahviq'a (a slough on the north fork of the Chulitna delta), Qahnigi Tunilen (a creek that runs into Chulitna Bay), to Indian Point. Some people went across Six-Mile Lake to the south shore and to nearby south Pickerel Lake.”⁴¹²

Interviewees widely agree that the lower Chulitna River has always been a focal point of Nondalton freshwater fish harvests—for trout in particular. At one time, freshwater fish camps were found at Indian Point and locations along the lower river, occupied by families harvesting and processing fish from the Chulitna, from the Nikovena and Long Lakes to Indian Point. As Natasia Zackar commented,

“Sometimes we go to Indian Point, lots of trout. We put up fish before [salmon] come. We bring it down dry. We eat that dried trout. Then [salmon] come and then we start putting up fish. We put that trout away. Wintertime, we want it, we eat it.”⁴¹³

In part because of the freshwater fish, elders attest: “Chulitna, you could survive there, that’s where they used to always camp, springtime; all the way up to Long Lake, [and] Nicovena.”⁴¹⁴ Even residents of Lime Village traveled the vast distance to Long Lake in the spring to harvest whitefish: “A Nondalton elder said that humpback whitefish were most abundant in the Lime Village area, including Long lake, and were caught with nets in spring, when Nondalton people were still trapping in that area.”⁴¹⁵ Elders also note that as part of this broader pattern of harvest, trout have been speared or netted in the Chulitna and its tributaries from the base of Groundhog Mountain to the Chulitna River confluence (GE). Many other freshwater fish camps have been mentioned by elders as well, both inside and near the current study area.⁴¹⁶ The fish camps we have discussed are listed in Table F1.

TABLE F1.

Freshwater Fish Camps Mentioned by Interviewees

Location	Dena’ina	Fish Species 1, 2
Alexie Lake	<i>Ch’qi’un Vena</i>	Arctic Grayling, Northern Pike, Dolly Varden
Alexie Creek	<i>Ch’qi’untnu</i>	Dolly Varden, Lake Trout, Rainbow Trout
Cape Shishcan		Lake Trout
Caribou Creeks		Arctic Grayling
Caribou Lakes on Koksetna River		Dolly Varden
<i>Ch’ghitalishla Vetnu</i> , Creek 1 Mile South of Nondalton	<i>Ch’ghitalishla Vetnu</i>	Lake Trout
Chi Point	<i>Chayi Ch’dedlish Kiyiq</i>	Arctic Grayling, Burbot, Lake Trout, Rainbow Trout, Whitefish, Candlefish/Freshwater Herring
Chulitna	<i>Ch’alitnu</i>	Arctic Grayling, Suckers, Northern Pike, Dolly Varden, Rainbow Trout, Whitefish
Chulitna Bay	<i>Ch’alitnu Hdakaq’</i>	Burbot, Suckers, Northern Pike, Lake Trout, Whitefish, Candlefish/Freshwater Herring
Chulitna River	<i>Ch’alitnu Vetnu</i>	Arctic Grayling, Burbot, Suckers, Northern Pike, Lake Trout, Whitefish, Least Cisco
Dry Creek		Lake Trout

Location	Dena’ina	Fish Species 1, 2
Fish Village		Arctic Grayling, Dolly Varden, Rainbow Trout, Whitefish
Flat Island	<i>Husuyghiqan Hni’a</i>	Whitefish
Frying Pan Lake	<i>Vak’ent’esi Vena</i>	Northern Pike, Rainbow Trout
Hammer Cache Creek		Arctic Grayling, Whitefish
Hardenburg Bay		See Pike Bay
Hudson Bay		See Sucker/Hudson Bay
Indian Point, Mouth of Chulitna River	<i>Yusdi Ghuyi’</i>	Arctic Grayling, Northern Pike, Lake Trout, Rainbow Trout, Whitefish
Igiugig, The Outlet of Lake Clark	<i>Nildink’et’a</i>	Dolly Varden, Lake Trout, Rainbow Trout, Whitefish, Least Cisco, Candlefish/Freshwater Herring
Jimmy’s Bay, Small Bay Below Nondalton		Arctic Grayling
<i>Kok’teek’tleh</i>	<i>Kok’teek’tleh</i>	Suckers
Kijik Lake		Suckers, Dolly Varden
Kontrashibuna Lake, Hardanberg Bay		Burbot, Dolly Varden, Lake Trout
Lake Clark	<i>Qizhjih Vena</i>	Arctic Grayling, Burbot, Northern Pike, Lake Trout, Whitefish, Candlefish/Freshwater Herring
Lake Clark, Creeks Running from the Mountains to Lake Clark		Brook Trout/Mountain Trout
Little River		Suckers
Long Lake	<i>Qinghuyi Vena</i>	Arctic Grayling, Northern Pike, Lake Trout, Whitefish
Macfal Bay		Northern Pike
Miller Creek		Lake Trout
Mulchtna Drainage		Rainbow Trout
Mulchatna River	<i>Vals’atnaq’</i>	Northern Pike
Naknek River		Least Cisco
Negro Lake		Arctic Grayling
Nicovena Lakes	<i>Unqeghdut Nikugh Vena (Upper Lake)</i>	Northern Pike, Rainbow Trout
Unqeghdut Nikugh Vena (Middle Lake)	<i>Arctic Grayling, Northern Pike, Lake Trout, Least Cisco</i>	Arctic Grayling, Whitefish
Newhalen River	<i>Nughil Vetnu</i>	Arctic Grayling, Northern Pike, Dolly Varden, Lake Trout, Rainbow Trout
Newhalen River, The ‘Landing’	<i>Niqanch’qentdelt</i>	Arctic Grayling, Dolly Varden, Rainbow Trout
Newhalen River, Upstream From Petrof Falls		Dolly Varden, Lake Trout

Location	Dena'ina	Fish Species 1, 2
Old Nondalton	<i>Nundaltin Vena</i>	Arctic Grayling, Whitefish
One-Tree Island		Arctic Grayling, Rainbow Trout, Whitefish
Owl Bluff	<i>Kijeghi Tsayeh</i>	Burbot, Northern Pike, Lake Trout, Whitefish
Perculate Creek		Suckers
Pickeral Creek	<i>Ch'dat'anntu</i>	Arctic Grayling, Suckers, Whitefish
Pickeral Lake	<i>Vata'esluh Vena</i>	Arctic Grayling, Suckers, Northern Pike, Whitefish
Pike Bay (USGS Hardenberg Bay, Miller Creek)		Northern Pike, Lake Trout, Whitefish
Portage Bay	<i>Ch'alikel'u Yitughitu</i>	Suckers, Northern Pike, Lake Trout
Portage Creek		Arctic Grayling, Burbot
Showshow Bay		Lake Trout
Sixmile Lake	<i>Nundaltun Vena</i>	Arctic Grayling, Burbot, Suckers, Dolly Varden, Lake Trout, Rainbow Trout, Whitefish
Sixmile Lake, Creeks Running Into		Brook Trout/Mountain Trout
Snipe Lake		Dolly Varden, Whitefish
Snowshoe Bay	<i>Ush'kitudghi'uyi</i>	Northern Pike, Lake Trout, Rainbow Trout
Snowshoe River		Whitefish, Least Cisco
Sophie Austin's Camp	<i>Near Chaq'ah Tugget</i>	Northern Pike, Lake Trout
Steambath Creek	<i>Nli Z'un Vetnu</i>	Arctic Grayling, Dolly Varden, Lake Trout, Rainbow Trout
Sucker/Hudson Bay	<i>K'denez Y'itughil'u</i>	Arctic Grayling, Northern Pike, Lake Trout, Whitefish
Sucker Lake	<i>K'den'ez Vena</i>	Suckers
Talarik Creek, Upper		Northern Pike, Rainbow Trout
Talarik Creek, Lower		Suckers, Northern Pike, (Rainbow Trout, In The Past)
Tanalian Point	<i>Tanilen</i>	Burbot, Whitefish
Tanalina Rivers		Arctic Grayling, Lake Trout, Rainbow Trout
Tanalina River, Lower		Burbot
<i>Tahvitq'a</i> , Slough On The North Chulitna River Delta	<i>Tahvitq'a</i>	Whitefish
Slough On The North Chulitna River Delta	<i>Tava Ven</i>	Northern Pike
Tazimina Lake, Upper	<i>Unqeghnich'en Taz'in Vena</i>	Arctic Grayling, Dolly Varden, Whitefish
Tazimina Lake, Lower	<i>Taz'in Vena</i>	Arctic Grayling, Northern Pike, Dolly Varden, Lake Trout, Whitefish

Location	Dena'ina	Fish Species 1, 2
Tazimina Creek		Lake Trout
Tazimina River	<i>Nughilqutnu</i>	Arctic Grayling, Dolly Varden, Rainbow Trout, Whitefish
<i>Ts'atanaltsegh</i>	<i>Ts'atanaltsegh</i>	Dolly Varden, Rainbow Trout
Tlikakila River		Northern Pike
Tommy Creek	<i>Ts'ananiighazitnu</i>	Arctic Grayling, Lake Trout
Twin Lakes, Mulchatna Drainage	<i>Nitqidlen Vena</i>	Arctic Grayling, Dolly Varden, Lake Trout
Volcano Creek		Arctic Grayling, Dolly Varden
Walker Slough		Northern Pike
West Point, Lake Clark		Lake Trout
Whitefish Slough	<i>Hulehga Tahvitq'a</i>	Northern Pike, Whitefish
22 Creek		Arctic Grayling, Burbot, Lake Trout, Rainbow Trout
¹ There are biological distinctions between Dolly Varden and Arctic Char that are not meaningful to subsistence fishermen (Krieg 2005: 59). The term 'Dolly Varden' has been used here to represent both.		
² <i>Salvelinus Fontinalis</i> is known as 'brook trout' in the communities of Iguigug, Kokhanok and Iliamna and as 'mountain trout' in Nondalton (Krieg 2005: 79).		

Among all of these spring camp sites, *Yusdi Ghuyi* (Indian Point), located in Chulitna Bay at the mouth of the Chulitna River, has been the most visited for the purposes of hunting, trapping, and freshwater fishing. In May or June, many Dena'ina families traditionally begin setting up spring fish camps at *Yusdi Ghuyi*. Here they continue to hunt and trap while fishing for trout, suckers, whitefish, and Northern pike.⁴¹⁷ Clyde Trefon, a lifelong resident of Nondalton commented that "Nondalton residents...prefer to travel to Chulitna Bay on Lake Clark to fish for northern pike."⁴¹⁸ Another Nondalton resident in Fall et al. confirms that in the "[s]pring time we used to go up Chulitna and get pikes and white fish."⁴¹⁹ Baretta Trefon also remembers fishing for Northern pike at *Yusdi Ghuyi* once spring arrived, saying, "Well we do fish at the mouth of Chulitna River at a place called Indian Point, that's where we fish for pike" (BT). Mary Delkettie remembers camping at Chulitna with her family, in order to fish for freshwater species:

"We used to go up the lake, Chulitna in the spring time to survive our dogs, you know, [to] put up trouts up there, suckers, whitefish, put that up for dog food, then they come back down here and get ready for fish camp, get wood and set up camp and move all the dogs down here again" (MD).

Similarly, Albert Wassallie, spent time at *Yusdi Ghuyi* with his family and recalled the unique importance of this site as a base for freshwater fishing on the lower Chulitna River:



Seining for northern pike in Chulitna Bay. NPS PHOTO / D. YOUNG.

“The most [important] places we went to with my dad and my mom, mother and my sister is Chulitna Flat they call it. ...And people used to stay there every spring. ...Every spring we used to go up there for dog food. We were low on dog food, there were a lot of trouts there. My dad and I would pitch a tent the same evening we would set a net... and the next morning that trout. And dogs would have enough food for the whole spring. We would come there with a sled while the ice is still good, over the portage [in April or May]” (AW 1985).

A few families also moved to Pickerel Lake to participate in freshwater fishing—a sort of minor outpost of the Chulitna Bay fishery. As Andrew Balluta recalled:

“Chulitna was the main area for spring camp. Maybe couple of families would move over into Pickerel Lakes cause there’s fish there too that they could use for the spring time. That’s the two areas that they...moved into for, for spring. Chulitna was...better for spring camp ‘cause there’s more game there. More place for moose, waterfowl, more fish, and even caribou, beaver, muskrat...” (AB in NC 1986).⁴²⁰

In summertime, families transition from freshwater to salmon fishing. Spring campsites remain in use until June or July, and residents continue to fish for grayling right up until the salmon return. Most freshwater species are not actively pursued again until after the salmon run ends in September.⁴²¹ Northern pike also remain within harvest areas during June and July. According to a Port Alsworth resident also quoted in Krieg, “As the summer goes on we would come up here into these sloughs, up here where it’s all braided. ...There’s ...some big old pike. And...a whole bunch of little sloughs in there that you’d [push a paddle through] ‘cause it’s too shallow. This is the Chulitna River, and it comes down all braided.”⁴²² He reported that the big pike returned to the area in summer. Perhaps significantly, some interviewees discuss the presence of not only “big” but “giant” pike, or other ominously large fish, in Chulitna River and its marshy margins:

“That’s not a place to go swimming. There’s quite a few other places. This lake here. The whole lake here it’s not advisable to be swimming in—especially on the Chulitna River and especially Long Lake and Nicovena, and all the other lakes that are close to them. There’s stuff in there that’ll eat you up in a heartbeat.

“It happened before to one of our people on Long Lake. A woman was on the beach cleaning caribou guts and they know how to go on the beach, like killer whale. And when they go on the beach then they roll back in. So it can come out of the water and go clear to the corner and go back in the water. And they’re huge. My dad caught pikes up there that were 10, 12 feet long in a net. Then he would get only two big ones in the whole 25 would be sunk. There are bigger ones over here. My buddy seen them, my buddy that lives right there [in Nondalton]. He’s got a really big sonar on boats. And those detected 20-footers. And that’s not the only ones, there was lots of them. They’re a different kind and they’re big...those big fish are part of our history too. There’s stories of black bear takedown; eye witness. Caribou takedown; eye witness. My uncle [saw] black bear take down. ... Pike” (RD).

For this reason, some families insist that children and others not swim carelessly in Chulitna River or its tributaries.



The braided lower reaches of Chulitna River, a center of freshwater fishing, hunting, and other subsistence activities.

NPS PHOTO.

Plant Harvesting in the Study Area

For inland Dena'ina families, plants have always been a source of essential foods and medicines, as well as materials used for ceremony, decoration, tools, shelter, fuel, and many other purposes. Plant use is woven through most other aspects of traditional Dena'ina cultural practice. Though plant foods are not harvested in quantities comparable to the harvest of big game animals or fish (Behnke 1982), the harvest and processing of animal foods traditionally required a diverse range of plant materials. Required were not only woods used to produce traditional hunting and fishing gear as well as the sleds and boats used to access hunting and fishing sites; and wood was not only required as firewood to cook and smoke animal foods. Significantly, plants were also used as ritual offerings, as seasonings, and in many other aspects of animal food procurement and processing. Technological advancements have eclipsed these practices today, yet some endure. Plant medicines, used externally or taken internally, continue to play an important role in the inland Dena'ina pharmacopeia.⁴²³ Moreover, traditional plant foods continue to be eaten widely in a community where access to outside produce remains expensive and unpredictable. Plants augment a diet still rich in animal foods. Finally, in addition to their nutritional and medicinal value, plants are a source of raw material utilized by inland Dena'ina craftspeople in the construction of shelter, tools, and transportation, thus “transforming the very forest around them into cultural objects.”⁴²⁴ Some of these uses are summarized here, though the uses of wood and other tree products are largely addressed in other sections of this book.

Reflecting the deep and enduring connection between people and plants, inland Dena'ina families possess extensive knowledge of plant habitats within the study area, and the seasonal availability, location, and harvest methods related to different plants. Many researchers have suggested that this is true of the historical Dena'ina:

“Plant foods, *hdenlyahi*, ‘that which grows,’ were of great importance during the spring and summer growing season, but were collected year-round. ... Like all hunter-gatherers, the Dena'ina had an intimate knowledge of their environment and of the edible and medicinal plants available at different times of the year.”⁴²⁵

Yet as is less often noted, the connection persists today. Knowledge of, and access to, harvesting sites remains essential for perpetuating the transmission of all manner of traditional knowledge including: plant uses for food, medicine, and materials; traditional values and practices relating to the plant harvest; plant seasonality, distribution, and many other forms of traditional ecological knowledge; and the traditional management of plant species through mechanical and ritual interventions.

A number of sources suggest plants occupy an important position within inland Dena'ina cosmology and ceremony.⁴²⁶ As with fish and game, the overharvest of berries is said to be “disrespectful,” and can cause plants to vanish temporarily or permanently. As inland Dena'ina elders attest,

“Just as they did with animals, the people had a very personal relationship with plants. They addressed them in a respectful way (if possible using the correct words), avoided waste, and gathered

unused parts carefully, both out of respect and to create food piles for animals.”⁴²⁷

Elders still describe “respect” as fundamental to the relationship between inland Dena'ina and the plants within their homeland. The concept is at the root of traditional management. For example, harvest restrictions instruct harvesters to collect only part of a plant rather than the whole, to avoid killing it. Just like animals and fish, plants are selectively harvested, leaving some behind to sustain the plant community and to allow more to return in the years ahead. This is seen to be effective for reasons both biological and cosmological:

“In the old days you didn't [kill for no good reason]. You only killed what you needed. You'd take some, but you'd leave some for next year. It's that way with the plants – you only pick a little and leave behind some—berries and things like that—so more will come back in the next year. You were taking care of it. Respect! The land is our life” (GE).

Of the many plants harvested in the study area, interviewees widely report that berries are the most common and enduring. Within the area, almost all families gather wild blueberries and huckleberries (especially the dwarf blueberry, *Vaccinium uliginosum*—*giga gheli* “real berry”), and blackberries (*Empetrum nigrum*—*gigazhna*). Within the area, many also gather “wild cranberries” (principally the lingonberry, *Vaccinium vitis-idaea*—*k'inghildi* or *hey gek'a*, “winterberry,” but also *Oxycoccus microcarpus*), lowbush salmonberries (*Rubus chamaemorus*—*nqut'l*), and highbush cranberry (*Viburnum edule*). Other species are consumed where available, but in smaller quantities. Examples include Arctic raspberry (*Rubus arcticus*), creeping raspberry (*Rubus pedatus*), wild rose hips (*Rosa acicularis*), mountain ash berries (*Sorbus sitchensis*), red and black currant (*Ribes triste* and *R. hudsonianum*), and others.

Dena'ina families traditionally eat berries both fresh and preserved. Large quantities of berries were formerly preserved in oil, though this practice has become less common with the availability of refrigerators, freezers, and canning technologies. Many elders have described the former practice. Albert Wassallie, for example, remembered his mother harvesting many pounds of cranberries and blackberries, and preserving them in oil, saying, “My, my mother use to pick enough berries, you know—a box full of cranberries and 50 pounds of blackberries, and...she put oil in there to



Gigazhna or “blackberry” (*Empetrum nigrum*), an important berry in Dena'ina cuisine and medicinal traditions, which is found throughout the study area.

DOUGLAS DEUR PHOTO.

preserve it—it keeps” (AW 1986). Agnes Cusma described a similar method of berry preservation, in which berries were stored in birch bark baskets, filled with oil then sealed with tallow:

“I see them putting it away [berries] in birch bark baskets. And some of them they put oil in there, you know, oil that don’t freeze. And then they cover the top and sew it around so no bugs or anything could get in there. They...seal it. And then around there where they sewed, they put tallow, moose tallow. It freezes. That’s how they seal it so nothing don’t get in there and it don’t get sour.... But they keep it in a cool place in the cache” (AC 1998).



Nivagi – blackberries with fat and sugar – at a Dena’ina elders gathering feast at Kijik. DOUGLAS DEUR PHOTO.

The tradition of sealing berries in oil is echoed today in the continued cultural importance of *nivagi*—a mixture of blackberry, oils (often Crisco, though in the past animal fat such as moose tallow), and sugar—that remains a popular desert or side dish in most households.⁴²⁸ While not eaten in especially large quantities, this food remains symbolically significant to modern Nondalton residents. Emblematic of enduring Dena’ina food customs, it is more often than not eaten at social and cultural events. *Nivagi* is made with various berries including black, blue, salmon, and cranberries, harvested within the study area.

Despite changing socio-cultural and economic conditions, berry harvesting remains a very important traditional practice within the study area. Specific

quantitative data regarding the harvest is thin, but Fall et al.⁴²⁹, for example, documented that 92% of Nondalton households harvested berries in 2004, a figure consistent with observations made during this study. In the mid-1990s it was common for some families to gather 10 to 15 gallons or more of blueberries and blackberries in a season.⁴³⁰ In recent times, berries are still consumed fresh in large quantities, but are also used in baking, and made into preserves. Most are very sweet and require no additional sweetener. Some berries, especially cranberries, are sour to the taste but are combined with sugar to make jellies, jams, or syrup. With or without sugar, “rose hips is good to make jam or juice or tea” as well.⁴³¹

Significantly, medicinal harvests of berry plant products take place concurrent with modern berry harvests. Highbush cranberry tea is sometimes used to treat cold symptoms, and crushed cranberries are sometimes applied to sore throats. Inland Dena’ina families have used northern red currant (*Ribes triste*) nunask’et’i (‘that which hangs down’) or jehdenghult’ila (‘ear it’s tied onto’) to make a tea to wash sore eyes. Inland Dena’ina families also use other parts of berry bushes beyond the fruit, such as leaves and stems. The stems and leaves of crowberries, for example, are a common cure for diarrhea and stomach problems, and are used to treat kidney ailments and eye infection: “they have wild tea...like blackberry leaves for diarrhea” (ND). One Nondalton resident recalls that “[a] lot of different plants are important for being sick too, that blackberry leaves; they use that for stomachache, diarrhea, cramps in your stomach.”

Berry harvests begin as berries ripen in the early summer and continue until the snow falls, all harvests being timed to the location and natural cycles of availability: “when the berries come back, your [only] boundary is where the berries finally start saying, ‘Ok, it’s wintertime now’” (FS). Many berries ripen for harvest beginning in July and August.⁴³⁴ The first of these to ripen are blueberries and crowberries or blackberries.⁴³⁵ The arrival of berries, most within a few weeks of one another, creates a sudden profusion of color and delicious abundance across the study area: “Cranberries, blackberries, blueberries. Mostly in the fall and in the summer we get blackberries, blueberries, salmon berries, low bush cranberries and currants.”⁴³⁶ Crowberries stay on the plant for an extended period and improve over time, so are usually picked in the fall. They keep well in a cool, dry place without preservation.

Much berry picking is carried out opportunistically as good berry patches are encountered in conjunction with other summer travel and subsistence tasks. Furthermore, families often scout good berry picking, looking for patches they have not recently used. For example, Ada Trefon describes how his family travels around the shoreline along Lake Clark and Sixmile Lake looking for good patches of salmonberries, blackberries, blueberries, and high bush cranberries. She recalls, “we go up the lake [for] the blackberries and the blueberries and the salmon berries we have to run around in boat looking for swamps [for salmon berries]” (AT). Thus, berry harvests are undertaken quite widely throughout much of the study area. Nondalton residents have been noted to travel farther than many communities to participate in berry harvests. Some travel to areas as far away as the margins of Iliamna Lake, while others go inland to the headwaters of the Koktuli River, even stopping en route to pick at Groundhog Mountain or Frying Pan Lake.⁴³⁷ Over time, some part of the community tends to find and utilize good berries patches, especially along the lakeshores and riverbanks.

Still, Nondalton residents report that certain berry gathering areas are especially important. These areas are sometimes visited exclusively for berry picking. Traditionally, summer fish camps are a venue for much berry picking. Interviewees have described several, though here we provide just a few examples, not a comprehensive list. Concentrated berry gathering areas are found along the lower Chulitna River, especially along the riparian margin of the river where large numbers of berries (especially blueberries) have sometimes been gathered in conjunction with moose hunting and other activities. Sometimes women have picked while men hunted along the river corridor. Areas for highbush cranberry picking are especially productive in the Preserve on Lake Clark near the Chulitna River mouth and Chulitna Bay. Both areas were also picked by families staying at places close to the mouth of the Chulitna River, including Indian Point historically.

Other berry camps are also mentioned. For example, Bill Trefon, Jr. remembers traveling from fish camp to *Chi* point where there was a camp from which fall hunting and seasonal harvesting would begin. He said, “Fish camp then *Chi* point is like a berry camp and a fall camp. Go up and pick berries. Hang out” (BTJ). Some families report moving from temporary camp to temporary camp so as to access multiple berry species at different times. Olga Balluta’s family, for example, harvested berries from camps around the perimeter of Lake Clark and Sixmile Lake, as well as adjacent mountains and beyond, as they traveled through the late summer and early fall: “around the lake... we go camping here and there for berries and stuff. That’s being put up for the winter. And that’s all the way around Lake Clark...up on the mountains, around the lake” (OB).

The lands east of Nondalton—up to and including Groundhog Mountain—are often visited for the harvest of blueberry and blackberry, usually in conjunction with summertime hunting for caribou and other species. These higher areas are said to have good berries even when berries are poor at lower elevations. Thus, some families use them as a fallback gathering sites, while others prefer the hill locations for gathering. Melvin Trefon, for example, speaks of places in this zone where blackberries, blueberries, cranberries, salmonberries, low bush berries, and currants are harvested:

“See we’ll go down Nundultunshla [‘little lake that extends across’] and we’ll go past the landing, and we go past the first rapids and there’s a trail that go from the river to this mountain down here, Taq’Nust’in (Dghil’u) [‘extends in lowlands’ (mountain)], this is a good blackberry, blueberry [cranberry, salmon berries, high low bush berries and

currants] picking [site], in these hills down below the landing, on this side of the river” (MT).

Melvin Trefon identifies another berry picking area for salmonberry, blackberry, blueberries, and cranberry “along the hills, *Chun’ Talen* there, and we like to go beyond and go all the way up to Long Lake” (MT). He recalls the distance he would travel to pick berries during travels through this area, and how sweet the freshly picked cranberries would taste:

“That trail that ends up in the timber [en route to Long Lake], and you go across this creek and there’s swamps in here, and we’ll go down there for salmon berries, we’ll find cranberries in the timber too. There’s two different kinds of cranberries you can go after, there’s really tiny red, sweet...they’re really small sweet berries. That’s what we go into the timber there for” (MT).

Salmonberry is picked where available, with some areas visited annually. The distribution of these berries is said to be much patchier than other traditionally harvested berries, and tends to be in swampy areas. In prime sites, interviewees describe the ground as being “just orange berries. It [is] pretty cool. You see orange everywhere” (RK). The forested, well-watered areas just west of Fish Camp are among the more important salmonberry picking areas mentioned. Rusty Point was mentioned as another place visited for salmonberry. Groundhog Mountain is said to have salmonberry picking areas as well: “one spot that was just full of salmonberries back there,” which are visited by people traveling there for other purposes (FS). So too, there are good salmonberry picking areas on the margins of the flats where Chulitna River enters Chulitna Bay:

“My brother was up there, right on the flats there. I want to go up and check because one time in the end of July whenever the salmonberries start ripening, he said he went up there at that time of year once just when the salmon were showing up and he said all along that one slough there and flats, there was a whole bunch of salmonberries” (CD).

A place called “Blueberry Hill,” just west of Fish Camp is another important berry picking area used widely by the community, and especially by people who have fish camps nearby. The hill is covered in a low understory of wild blueberry, interspersed with blackberry and other plant species. The hill is easily accessible from Nondalton as well as the fish camps on the west side of the river, and families regularly visit the rolling hills in the weeks approaching berry harvest to assess the quantity and ripeness of the berries. Women and children, especially, climb the hill as fishing begins to taper off at Fish Camp, beginning the picking season. The hill is the focal point of ancillary resource harvests tied to the community salmon fishery and camps centered on Newhalen River. For many families, it is the principal focal point of family-scale plant harvests, bringing together children, adults, and elders to pick and socialize when the year’s fish run dwindles. When the berries first come out, families “look around” close to Fish Camp or the village. As the harvest

continues, they travel further away from the village to areas well beyond Blueberry Hill. In recent years, the tribal and city governments have reviewed proposals by outside agencies to mine the hill for gravel, to be used on proposed road construction projects linking Nondalton to Lake Iliamna in the south and proposed mining lease lands to the east.

Certain dimensions of inland Dena’ina traditional ecological knowledge (TEK) relate to berries and their availability. For example, as Rick Delkettie notes, “they say if we have lots of snow then there will be lots of berries. We actually got to see that firsthand because when there was no snow [last winter], there was hardly any berries anywhere” (RK). Such TEK is extensive and nuanced. Future research on plant knowledge might yield considerable information on the scope of this knowledge and its relationship to factors such as climate change.

Linked to this body of traditional knowledge are forms of picking etiquette that seem to reflect longstanding efforts to maintain both social and environmental balances. As with other types of resources, expectations require that harvests be shared within a community: “Share with the community. All the berries I pick every year I just, it goes to the elders” (FS). Beyond this expectation, mobile families often travel to more remote berry picking areas, to preserve berry picking close to the village and Fish Camp for those less mobile:

“[Fawn Silas] and I started getting berries away from [the village] because the way we see it, ...we want to save that for people who don’t have transportation.... It’s just walking distance for them. So her and I go out and away from it just because we have transportation.... It’s nice to let other people have a chance to get it, you know. ...If we can save the ones that are close for everybody.... It’s like leaving some for everybody” (RK).

Such efforts manifest traditional notions of “respect”—respect toward the plants and respect toward those in the community. They spread out the harvest, helping to avoid localized overharvest and ensuring that even the elderly, infirm, and children can meaningfully take part in the berry harvest. In this manner, people have also sometimes picked berries in other parts of Alaska, when traveling for other purposes, to make up for local deficits.

Beyond berries, many other plants are traditionally utilized by inland Dena’ina families, and continue to be gathered regularly within the study area. From spring until late fall, the Dena’ina harvest many other wild food plants, such as wild celery, wild onion, wild rhubarb, wild potatoes, wild carrots, sour dock, greens, and mushrooms.⁴³⁸ In many households, these plant foods represent an important and enduring part of the diet.⁴³⁹ Some of the principal harvested plants interviewees identified within the study area, and that were used for food and medicine, are discussed here.

Ferns are often found in the well-watered forest understory within the study area. Their young, curled “fiddlehead” shoots are sometimes still harvested and eaten. Baretta Trefon, for example, described how fiddleheads are traditionally harvested in the springtime when they begin to unfurl (BT). Often these greens are pan fried before being consumed. Some families have adapted them to new uses, such as stir fries, in recent times. Fern roots are also utilized. They are especially employed to make green dyes used for such purposes as dyeing porcupine quills for Dena’ina basketry and other traditional crafts.

Wild onion (*Allium spp.*) greens are still gathered where available along riverbanks and lakeshores, and incorporated into cooked foods and salads. Elders note that, during the late spring and summer camps at Indian Point, Dena’ina families historically gathered large quantities of wild onions along the banks of the lower Chulitna River. Albert Wassillie noted that onions gathered in this place were key to traditional cuisine, being consumed with meat also harvested along the



Wild Celery (*Apium graveolens*). NPS PHOTO/A. MILLER.

Chulitna: “all along Chulitna River there’s beaches some places and those places have lot of onions and they pick a lot of those, and they would cook meat and boil onions” (AW).⁴⁴⁰ In addition to being used fresh in soups and stews, onions are stored for the winter by drying, freezing, or canning. Gladys Evanoff describes such preservation in recent times: “we use wild onions they grow along the beach, they first come out in the spring time, we pick that and cut it up and put it in jars with salt and use that as onion” (GE). Preserved in this way, wild onion—much of it gathered within the study area—continues to be integral to the modern inland Dena’ina diet.

“Wild celery” (*ggis*) is often reported as a plant food, used as a green and a condiment. Yet this is also a highly important plant for other uses. Roots and possibly the tops of wild celery are part of traditional medicine, used in rituals meant to cleanse and purify structures. Wild celery is also integral to the First Salmon ceremony, thrown into the water to bring in the fish, as mentioned earlier in this book. It has often been harvested concurrent with preparations for the salmon harvest. Gathering of wild celery is reported in the hills immediately east of Nondalton and Fish Camp, and in other places within the study area. Speaking of his youth, Melvin Trefon remembers that as summer approached, before the beginning of the fishing season, a trip was made into the mountains to harvest wild celery to be offered to the returning salmon. He recalled, “we’ll go up Women’s Mountain, the bluffs and there, and we’ll pick some plants we call *ggis* and it’s wild celery. We’ll go up there in the summer and that starts off our summer fishing...” (MT). The plant is said to grow at the base of the mountain, as is true on other more distant mountains within the study area.

Another important food plant has been known as fireweed (*Epilobium angustifolium*), the inner stems of young shoots being eaten. Related to this plant is *stlishlova*, a plant found along the waterfront in the study area, that is made into a pudding-like substance when boiled with flour and sugar. Olga Balluta described this dish, saying:

“Plants are very important. There [are] plants right here all along the shore that they call it *stlishlova*—it’s like fireweed. They used to pick those and boil it with sugar and then make it thick with flour and make it look like pudding. ...I mean, that was our pudding!” (OB).

The plant, said to be similar to fireweed but shorter, seems to reference young fireweed shoots. Fireweed was also mixed with fish, dried fish bone, fish eggs, or reindeer lichen to make food for sled dogs. As with many plants, there is a detailed traditional knowledge relating to fireweed, and its appearance and disappearance is known to correlate with other environmental phenomena. Noting this, Butch Hobson recalls a traditional inland Dena’ina saying that means: “when the fireweed is done blooming, it is time to prepare for winter.”

Roseroot (*hushnila*), gathered where available on some of the small islands and on the lakeshore of the study area, but also in specialized harvests in mountainous areas, remains an important medicinal plant for sore throats and other purposes. About roseroot, it is said: “They chew it, I guess, or something, drink the juice for sore throat” (GE). As one Nondalton resident attests, the timing and location of roseroot harvests had much bearing on its potency:

“There’s medicinal plants we pick, when they are ripe at a certain time... they have more medicine... before they bloom is when they’re much stronger. In the summertime too, we pick *hushnila* (roseroot), low bush plants that grow on the mountain, that’s for sores. ... Most of these you get from the mountain...”⁴⁴¹



Fireweed (*Chamerion angustifolium*). NPS PHOTO/K. JALONE.

In addition to being a source of berries, mountain ash (*Sorbus sitchensis*—*vinek*) is a highly important medicinal plant. The foliage of the tree is used to help cure aches and cuts. Nancy Delkettie notes that the foliage of mountain ash can also be used in a steambath for sore muscles and to heal cuts (ND). Clara Trefon identifies the area below Boys Mountain as an important place to harvest the plant for steam baths, along with wild celery, birch bark, and high bush cranberry (CT). Mountain ash is also gathered along the lakeshore and riverfront, and picked in mountainous areas. As Nondalton residents explain, peak gathering is said to occur in the month of July: “pick *vinik* certain time, like second week, or third week in July when *vinik* is on the mountain, mountain ash is ripe at a certain time.”⁴⁴²

Wormwood (*ts’elveni*—*Artemisia* spp.) was also gathered along the shoreline and used as a medicine for various maladies: “That was our medicine!” (PH). A compress or decoction of wormwood is sometimes put on the skin of people with open sores or infections, while a decoction is often used for those having severe reactions to mosquito bites (GE, PH, Fall et al.⁴⁴³). The plant is generally understood to be cleansing and purifying, so it is also used in mundane and ritual contexts for that purpose: “They used for ‘switching’ in the steam [bath].... They say that’s good medicine” (GE). Wormwood compresses are also used on sore muscles and joints. At times the plant is an ingredient in medicines taken internally as teas: “Another thing they use is that *ts’elveni* [‘that which is spilled’]... they use that for sores and they drink it for tea too” (GE). One Nondalton resident quoted in Fall et al. also remarked upon the use of wormwood gathered along the shorelines in and around the study area:

“There’s *ts’elveni*, that’s good for sores, mosquito bites, infection, they make tea out of it and drink it, wormwood is the English name, they pick that certain time too.... [*T*]’*s’elveni* you can pick along the beach, grow along the banks of the river, along the creeks, lakes and ponds.”⁴⁴⁴

Mixed with yarrow (*Achillea millefolium*), which is also gathered along the shoreline, wormwood is consumed for colds, the symptoms of cancer, and even for mosquito repellent (PH).

The roots of Devil’s club have been used by many families as an anti-inflammatory and for a wide range of other purposes. These were especially sought in the mountains within the study area. For example, Clara Trefon described her grandmother ascending into the mountains for Devil’s club roots in the fall:

“The mountain plants are really important to us. Our grandmas used to pick other plants for medicine, course they got medicine different times of the year. They like fall time for the roots, they would pick different, devils club roots. There was many medicines from plants” (CT).

Meanwhile, “Indian tea” or Trapper’s tea (*Rhododendron groenlandicum*) is still widely used as a beverage and a medicine—gathered in tundra and marshy areas throughout the study area. Many interviewees, including Ada Trefon, have harvested this tea from the hills behind the fish camp at Newhalen River (AT).

Other plant-like products—mushrooms, mosses, and lichens—are often mentioned as a source of both food and medicine gathered within the study area. Teresa Rickteroff, for example, is one of several Nondalton residents who

gathers various mushrooms near Nondalton Fish Camp: “I know one of them is a morrell, I think. There’s like three different kinds that I know of. ...[T]here’s usually a lot on that Fish Camp trail” (TR). Reindeer lichen (*Cladonia rangiferina*) was also mixed into dog food as thickener historically, as it becomes especially palatable to dogs when cooked, and is said to help with intestinal parasites and other digestive issues confronting sled dogs. White moss, *nan ggeya*, and red moss, *nan dasdeli*, are found in swampy locations and are used to battle inflammation, muscle soreness, and diaper rash. Katie Wilson, for example, recalled in past interviews her mother’s use of moss as a medicinal plant: “her main medicine was this white moss you get from the swamp. She used that quite a bit for infections and stuff.”⁴⁴⁵ White sphagnum, known to the Dena’ina as *nan ggeya*, and red moss, known as *nan dasdeli* [literally ‘moss that is red’], are also used medicinally. Gladys Evanoff describes how red moss is gathered from swampy areas. It is used to reduce swelling by heating and then releasing the steam over the afflicted area:

“That red moss—if you hurt your arm or you’re swollen, you pick that on a swamp, it’s on a swamp, it’s red on top, they pick that and bring it back and put it in a basin and then they use rocks and make that moss really hot and use that on your sore, but something over your leg, it’s like a steam, help your sprain or whatever. [Get in the hills, in swampy areas]” (GE).

Jack Hobson also described the use of red moss to alleviate sore muscles: “They use some along the, I think it’s *ts’elveni* [‘that which is spilled’—wormwood], and there’s a red moss used for sore muscles, there’s lots I could show you but I don’t know the names of them... there’s some along the beach...and along the river” (JH). Olga Balluta remembers the medicinal use of red moss to treat inflammation, reporting, “if they have upset stomach, diarrhea, infection, or if they get hurt and swell up really bad. And there is a, there is moss out there that they use for that red moss” (OB). Nancy Delkettie recommends red moss for the relief of diaper rash, saying, “You know when your baby has a sore butt? You just put that, you just use that moss” (ND). These products are gathered where found in the study area, with many families tracking where such lichens and mosses are available, returning when there is a specific need.



Knowledgeable Dena’ina elders such as Butch Hobson, shown here, continue to hold and share traditional knowledge that extends far beyond the scope of any available written documentation of the Chulitna-Sixmile region – knowledge that might continue to be documented in future collaborative research efforts. DOUGLAS DEUR PHOTO.

Elders attest that the harvest and effective use of medicinal plants requires a detailed knowledge of the landscape (where to harvest), the flora (what plant to harvest and what time of year), and proper harvest methods (the desired part of

the plant: leaves, root, flower, and the like). As is true in many places throughout Native North America, plants gathered from high elevations, such as on mountains, are said to be more potent than their lowland equivalents, even (perhaps especially) when the lowland plants are abundant. Enveloped in this understanding is a familiarity with the seasonal variations in plant products and reproductive cycles that dictate the availability and potency of certain plant components such as leaves, flowers, and roots. There appear to be both biochemical and cosmological bases for this view.⁴⁴⁶ When asked where the most important areas for plant harvests are located, elders such as Olga Balluta respond: “Up. Mostly upside the mountain, on top of the mountain, even right around here you could pick some up, just anywhere up on the hill. There’s a lot of plants that we could use” (OB). Thus, while much medicinal plant gathering occurs along shorelines and trails in the lowlands, there is clearly a specialized pattern of upland plant harvesting of species such as Devil’s club, hellebore, and other species that brings people to higher elevations within the study area, even considerable distances from villages.

While this is a selective list, identifying plants mentioned most often in relation to the study area, it is important to note that almost every plant traditionally had a cultural use.⁴⁴⁷ Even such basic materials as grass had myriad uses historically, some of which persist today: “Grass was used for making baskets, mats, insulation for clothing and footwear, and flooring; and was burned as a mosquito repellent.”⁴⁴⁸ A far more comprehensive ethnobotany could be developed for this area than is presented here.⁴⁴⁹



Nondalton residents learning and teaching traditional basket making techniques at Quk’ Taz’un Outdoor Learning Camp, at Kijik. KAREN EVANOFF PHOTO.

tradition has continued, but with a smaller number of knowledge holders. Men like Butch Hobson and George Alexie have been key to this process. In recent times, these men have overseen organized culture camps and other formal trainings for tribal youth—at Beaver Camp, Kijik Camp, and other venues, often with NPS support. Using native woods, sinew,

Modern Traditional Crafts, Native Materials, & Gathering Places

Many natural materials are still harvested in the study area to support the production of traditional crafts—plant materials in particular. A generation ago, many highly knowledgeable traditional craftspeople still specialized in items used for hunting and trapping in places like the Chulitna Basin. These individuals knew how to make snowshoes, dogsleds, and other items, while also teaching the skills to younger tribal members. This



Hudson Point, a place for hunting, berry gathering, and other subsistence activities. KAREN EVANOFF PHOTO

and other materials gathered within the study area, they hold demonstration projects for tribal youth meant to sustain traditional manufacture of snowshoes, dogsleds, boats, and other items, knowledge that might otherwise be lost, with these craft traditions eclipsed by synthetic materials and new technologies.

A small number of inland Dena’ina traditional craftspeople focus on crafts like beadwork and birch bark baskets. The beadwork ordinarily involves synthetic or glass beads, but still incorporates traditional materials such as porcupine quills. Quillwork remains one of the few common craft skills involving traditional materials today. The porcupine quills used for the purpose are usually taken from porcupine hunted for food—much of it acquired within the study area. Many porcupine hunting sites are effectively multi-purpose camps, used for plant and animal harvests concurrently:

“We went berry picking up there by Hudson Point and there was a big [porcupine] right there that we got. ...There was a couple running around. Yeah, and we always see ducks up over there too actually... August it was, I think, when we were berry picking. ...It is great berry picking over there though [for black and blueberry]” (RK).

People are said to never hunt porcupine for the quills exclusively. Some suggest that hunting for the quills alone is inappropriate—perceived as wasteful and disrespectful.



Long a trade good, beaver fur is still widely used in the production of caps, mittens, and other accessories. In addition to being produced for sale at times, these are often given as gifts or exchanged in potlaches and other social gatherings. Beaver hats, gloves, and other materials have become one of the more common types of items given away at funerals, and the community's production and sharing of these items is described as integral to the healing process. Much of the beaver used in the production of these items is taken especially along the Chulitna River and Chulitna Bay, or other lakes and wetlands within the study area.

Birch bark baskets incorporate not only birch bark but spruce roots (*Picea* sp.), long straight shoots of willow (*Salix* spp.), and currant stems (*Ribes glandulosum* and possibly *R. laxiflorum*), often gathered on loose, sandy shorelines along the Chulitna River and lake margins. Birch bark gathering is undertaken in spring and early summer especially, when the sap is running and the bark peels easily from the tree. The bark is gathered from trees in the hills and along the shoreline near Nondalton. Dense concentrations of peeled trees can be seen in the woodlands surrounding Fish Camp, including both recent and very old peel scars. Additionally, a few families gather birch bark along the lake margins, especially near the Chulitna River mouth and Chulitna Bay. The larger Chulitna River was once used for birch

A culturally modified birch tree, its bark peeled for the construction of traditional crafts, near Chulitna Bay. DOUGLAS DEUR PHOTO.

bark harvest as well, concurrent with moose hunting and other summertime activities. Culturally modified birches with scars from this practice are reported along the Chulitna, though harvesting is said to be rare along the river today. Bark, peeled in these areas, can still be seen stockpiled in some Nondalton homes, awaiting incorporation into baskets and other traditional crafts. Birch bark tubes are also fashioned into moose calls—a traditional practice still carried out today and taught to tribal youth. To make the calls, peeled bark is rolled into a tube and stitched in a manner reminiscent of baskets. The scars from this practice are said to be substantially the same, though in some cases a bit smaller, than those on birch trees peeled for basketry. Peeled birch bark is also stockpiled as fire-starter at times, including pieces peeled for craft purposes but found wanting in quality, size, or for other reasons.

Long pieces of spruce root are remarkably durable, and are used as lacing on baskets as well as other purposes, such as the production of rope and fishing line. Spruce root gathering appears to involve both white spruce (*Picea glauca*) and black spruce (*Picea mariana*). Within the study area, spruce root is usually gathered from sandy loose soil along riverbanks

and lakeshores since in these locations roots are easier to remove, and tend to be longer and straighter than roots in dense or rocky soil. Gathering is especially done after high water, when wave action or erosion has removed rock and sand, exposing new roots. Trees with wide limbs are said to be the best, being robust, uncrowded trees that often have far-reaching root networks. The roots are peeled, split, and used to form thongs and withes for traditional crafts, rope, and other durable thin materials. People gather what they need and store it for later use. "As soon as you soak it in water, it's flexible again.... So you can use it whenever you are ready" (PH).

Willow and currant are also gathered along shorelines where available. These materials are usually gathered concurrent with other subsistence tasks, with the shoreline near Fish Camp being a popular gathering site in recent times. Willow gathering along the Chulitna River was said to have been common historically, in association with subsistence hunting and fishing.

Special Harvesting Landscapes: Chulitna River Gravel Bars

Dena'ina elders attest that sand and gravel bars along Chulitna River—especially its lower reaches—have always been places of unique cultural significance. They are some of the best haul-out spots for canoes and boats along the entire river—uniquely dry and open, with low-gradient banks, otherwise rare along the Chulitna. The ground there is firm and usually noncombustible. For these reasons and others, sand and gravel bars have long been the focal point of summertime activity along the river, indeed on all major waterways within the region. These sand bars have been heavily used for many reasons: as locations for summertime campsites and as places for temporary social activities and meals; as hunting grounds for moose, bear, and other species; as temporary fishing stations; as butchering and food processing sites; as firewood gathering sites; and as gathering places for plants, stones, and other materials.

Willow (*Salix* spp.) has sometimes been harvested from sand bars. Spruce roots, too, are often gathered on the river's edge above sandbars, where erosion has exposed them. Many other types of plants are uniquely available on sandbars within the river, and harvested in the spring and summer. Some are



The frame of a temporary structure built of riparian willow (*Salix* spp.) along the banks of Chulitna River. Cut stalks have taken root in this case, so that some supports are still living, likely becoming full shrubs over time. DOUGLAS DEUR PHOTO.

medicinal, but many are food plants, still harvested in modest quantities today. During the springtime, wild potatoes, wild onions, wild celery, and wild carrots are traditionally dug from the sandbars around the region. Regarding the harvesting of wild potatoes at Rock Creek and Caribou Creek, apparently on sandbars, Melvin Trefon comments: “[W]e used to go up Chulitna River and we’d pick wild potatoes at Rock Creek, it’s just a known area that wild potatoes grow there... there’s wild potatoes there not everywhere... Caribou creek...” (MT). Harvesters such as Nancy Delkettie still gather wild roots along the rivers and incorporate them into modern cuisine: “you could dig up these roots [on sand bars] and cook them” (ND). In addition, Ada Trefon has harvested wild celery alongside rivers and streams, and wild onion from beaches (AT). Furthermore, the driftwood found on sand and gravel bars is often dry in a way that is rare elsewhere in the region. Thus, it is gathered abundantly for camp use at these places.

Cobbles gathered on sand and gravel bars were often used as cooking stones. Certain gravel bars and beaches along the lakeshore were especially noted to have good stones for specialized purposes—one example beyond the study area being Whetstone Bay on Lake Clark, where uniquely flat rocks are gathered as sharpening tools.⁴⁵⁰ Sand gathered from the sand bars, and also from lakeshores, has been used in the manufacture of traditional pottery and cement. Pete Bobby, for example, describes the making of “Dena’ina cement,” a mixture of sand and clay used as a building material to secure posts in the ground: “Dena’ina Cement... is made by grinding sand... He smashes that sand over again and he makes it nice and smashes it. He strains it pretty good with clay. ... Then he dry them up. He makes that hole in the middle how big he want it. He let them dry there just like rocks.”⁴⁵¹ Additionally, Dena’ina craftspeople historically used a mixture of beaver hair, sand, and clay to make food containers. As described by Ellanna and Balluta: “Although Athabaskans generally did not make pottery, elders reported making food containers from beaver hair mixed with sand and clay.”⁴⁵²

In spite of their great importance as a landscape type, sand and gravel bars are unusual places. Their configuration and placement are almost constantly in flux along the river’s course, making it difficult to attribute specific historical and cultural events to specific modern bars. For this reason, specific sand bars were not typically mapped in detail in the course of project fieldwork. Still, interviewees identified major complexes of sand bars as being especially important for the reasons specified here, such as those found in the vicinity of Johnson Slough and for the few miles above the “flats” at the Chulitna River mouth. No doubt, gravel and sand bars in almost every reach of the river have been used at some point historically. Their configurations will continue to change, but they will surely continue to be used into the future.



Revisiting Land & Resource Use Within a Cultural Context

Inland Dena'ina people have traversed the study area for centuries—walking the trails, guiding dogs and sleds over snowy terrain, both alone and in groups, tracking, hunting, trapping, fishing, gathering, visiting, and trading. This lifestyle has endured for thousands of years despite tremendous changes in technologies, economies, demographics, land ownership, and regulation. Despite these riveting changes, Dena'ina people have retained their way of life, one that not only provides necessary food but also sustains culture and community. Through repeated interaction with one another within a dynamic homeland, Dena'ina families assert they might still sustain their traditional ecological knowledge, their core social values and cultural competencies, a range of interpersonal relationships, and their physical and psychological well-being.

Thus, when trying to explain the logic of subsistence, conventional economic models simply do not apply.⁴⁵³ The objectives of traditional subsistence are not just about procuring material items like food, but also such things as “social status and group solidarity.”⁴⁵⁴ As Ellanna and Balluta explain:

“ [Subsistence] is the most reliable aspect of the inland Dena'ina economy. It offers opportunity for participation year-round with diverse proceeds. ...It is the occupation in which the vast majority of people prefer to engage and which is considered proper ‘employment,’ a source of economic security, and a source of ‘traditional’ wealth and prestige in the Dena'ina world view. It is more than economics—it is the core of their lives.”⁴⁵⁵

Life on the land—subsistence activity in particular—allows for the intergenerational transmission of knowledge, helps solidify communal ties, makes possible an integrated worldview contingent on the continued instruction of Dena'ina youth, and gives people a sense of confidence and purpose. In a word, this way of life is necessary to their continued identity. Without a sustained, meaningful connection to the land, it is unclear what it might mean to be “inland Dena'ina.”

These values—many of them intangible in nature—have been hard to quantify, and tend to be omitted from conventionally quantitative, significantly economic accounts of Dena'ina land and resource use. Yet clearly, resource procurement activities—hunting, fishing, gathering—are about far more than food production. Each of these activities is no less integral to Dena'ina *cultural* survival than it is to the community's physical survival. Some suggest that this point is overlooked, even sometimes by those who seek to support or represent the inland Dena'ina community.⁴⁵⁶ The sections that follow seek to illuminate this aspect of modern land and resource use, drawing especially from the words and teachings of tribal elders.

TEK & Resiliency in a Dynamic Environment

The study area, from its Chulitna River headwaters to Nondalton Fish Camp, is a remarkably dynamic environment. Annual temperatures, levels of precipitation, and other regional weather patterns vary significantly from year to year. In turn, this affects the maturation of flora and distribution of fauna on which the inland Dena'ina depend, so that availabilities are hard to predict.⁴⁵⁷ As Rick Delkettie observes, “Even though you're doing the same thing repetitiously every year, it happens in a different way based on the weather” (RD). Knowledge of daily, seasonal, and annual weather patterns is key to the success of resource harvests and the wellbeing of resource harvesters, as is knowledge of game movements. Misjudging the characteristics of ice or partially frozen soil can be lethal.⁴⁵⁸ All day, every day, as they travel through the land, subsistence users must track these and myriad other environmental variables. Inland Dena'ina have developed a comprehensive knowledge of the dynamic ecological interactions of elements influencing the movement and availability of both flora and fauna across the landscape.⁴⁵⁹ These are among the many types of knowledge that have been gathered and shared by inland Dena'ina people over generations spent exploring every part and potential of their homeland. Through enduring subsistence practices, taking people repeatedly back to the land, inland Dena'ina people are able to sustain this traditional ecological knowledge (TEK) and to prosper in their distinctive environment.

To make this point, we look at some of the more critical forms of knowledge relating to extreme cases, such as when fish or staple game do not appear. As has been documented abundantly in past studies, “all inland Dena'ina elders... keenly remembered stories and actual occurrences of famines when they had to range far in search of large game and depend heavily on such small game and fish.”⁴⁶⁰ Migratory paths of big game are often shifting in response to both major and minor environmental changes—from volcanic eruptions to changes in food availability to the presence of helicopters and surveyors. Accounts of lean times, even starvation, are commonplace in inland Dena'ina oral tradition—times when, as Rose Hedlund described, “There was nothing to hunt... no moose, no caribou, ducks, spruce hen and rabbit was the only meat animals around” (RH 1985).⁴⁶¹ Similarly, there are many accounts of crashes in salmon population.⁴⁶²

Throughout this book are examples of adaptive strategies meant to buffer the inland Dena'ina community from the adverse effects of such changes. People have sometimes returned to ancestral villages, hunting grounds, and fishing stations far away—in places such as the Mulchatna River Basin and Telaquana Lake region, where their ancestors hailed from generations before, and where resources might still be found. Often when they make these journeys, they traverse the study area along time-honored trails. The presence of salmon, caribou, and other species in distant locations is said to have been detectable not only by “news” sent through social channels along these trails, but by environmental cues such as snow depth and vegetation conditions near Nondalton that are predictive of harvest potentials in more distant places (BH, PH, RD). Many oral traditions mention people surviving localized resource crashes near Nondalton using this strategy—a costly approach, in terms of time and resources required to access subsistence resources, but one that ensures the survival of the community.⁴⁶³

People also revert to less preferred species, such as certain freshwater fish, as discussed earlier—sometimes using specialized traps to catch sufficient food.⁴⁶⁴ In especially bad times, even sticklebacks and sculpins appear on the menu.⁴⁶⁵ In other lean times, the consumption of small animals becomes a key subsistence strategy, an approach that has even been practiced in recent times. As Rick Delkettie explains,

“ If there's... major changes, we recognize [and respond to] those changes... 1998 was a bad year for salmon. We didn't even go up and get fall fish. Salmon was scarce. When it's like that...you just eat more porcupine and beaver” (RD).

In these times, people have also intensified ground squirrel harvests, or even reverted to eating red squirrel, which are often abundant when few other land mammals are present.⁴⁶⁶

In these lean times, other strategies were known to work as well. People concentrated in known and predictable harvest sites such as Nondalton Fish Camp, abandoning more peripheral and less predictable resource sites. For some families, their fallback place in times of resource crisis was the lower Chulitna River and Indian Point, where a rare diversity of resources was said to be predictable and protective: “Sometime we run out of dog fish, so we had to go up Chulitna flats. ...And there are trouts—all kinds of trouts up there. ...And we’d get all the ducks we want” (AW 1986).

People also developed both the habit and the technologies of food preservation, aimed at the preservation of surplus for times of resource scarcity:

“Like fish now they should be putting up fish some way, canning it or drying it, making salt fish or something, so they’ll have something on hand in case hard times come. That’s what old people used to do, say put up lots of fish, [as] much as you can, even if you got some left over. Don’t throw it away cause you don’t know what the future is” (GE).

Some preservation techniques are still employed largely to keep the practice alive, on the chance that it may someday be required.⁴⁶⁷ As part of this tradition, and this response to potentially scarcity, inland Dena’ina people traditionally have a strong and multifaceted aversion to the waste of food and other resources, as mentioned above.⁴⁶⁸ They sometimes appear fundamentally conservative when it comes to the processing and consumption of foods, saving rather than lavishly consuming resources.

People balance the use of one staple with another. If caribou declines, for example, salmon or moose procurement often increases.⁴⁶⁹ Yet as mentioned, inland Dena’ina also developed subsistence that depended on a vast diversity of resources—including even small animals, lesser-used fish, and a diversity of plants with different habitat requirements—rather than investing solely in intensive, single-source harvests.⁴⁷⁰ In a few instances, interviewees spoke of intentionally alternating between resource areas in order to minimize pressure on any one area, helping to minimize potential scarcity.⁴⁷¹

Furthermore, Dena’ina people traditionally see such times of hardship as being both a material and a moral crises, sometimes brought on by human departures from divinely ordained resource ethics. As such, these times also have broader cultural effects. Times of hardship likely contribute to and amplify preexisting conservation ethics, helping to ensure food security in future times no matter what the baseline resource availability. When the scarce staple resource rebounded, it not only retained its original significance, but arguably held an even more elevated status—as a resource high in demand, but requiring special observances and care.⁴⁷²

Nondalton residents still see these values not only as culturally consequential, and materially sustaining, but as necessary for their future survival. Climate change is surely affecting the availability and distribution of resources, giving traditional resource practices and values new urgency, while also requiring that inland Dena’ina TEK be continuously recalibrated to fit a changing environment.⁴⁷³ Yet as noted elsewhere, the Nondalton community shares a widespread belief that hard times are ahead—for reasons social, economic, environmental, or otherwise. When these times come, they attest, only a robust culturally-rooted knowledge of the land and its resources will ensure the survival of the Dena’ina community. As Jack Hobson explains,

“This is who we are, we’re cultural connected and subsistence connected to this earth right here and everything around here has some kind of use to us. If it ever came back where we had to come back to our roots, we would have no problem out here. Sure we got all this Western society stuff that gets us around and stuff like that. But I always remember something, our ancestors always told us ‘don’t ever get used to the western society, the stuff and don’t ever get used to their food because there’s a day when we’re gonna have to have these resources and depend on it again” (JH).

Such sentiments are widely reported by researchers who have worked with inland Dena’ina families.⁴⁷⁴ This may explain the urgency with which some inland Dena’ina approach participation in traditional subsistence harvesting, as it is one of the most significant ways they can maintain and transmit traditional ecological knowledge and cultural values required to survive in a changing environment. This may also explain the amplified concern reported by some Nondalton residents when they witness erosion of the land, resources, and culture of inland Dena’ina people—even in small ways. These are not minor threats, but are recognized as threats with existential scope.

Elders, Knowledge, Land, & Survival

Elders and other knowledgeable people within the inland Dena’ina community value opportunities to learn and share the rich detail of Dena’ina traditional land and resource knowledge as opportunities to bring people together, building personal and community resilience, and giving life meaning. Once people gain this knowledge and achieve a level of cultural competence on the land, they feel greater confidence and security. As Jack Hobson explains this restorative quality of traditional learning:

“Like your home, you know every detail and where everything is. If you know your land, country, its resources, plants and animals, you will be content and relaxed. You can survive in it.”⁴⁷⁵

Similarly, June Tracy observes that the transmission of knowledge from elders defines the community’s “way of life”:

“[A] lot of people don’t know about what nature is. They are so used to that concrete life, living in a concrete city, going to the office, looking at a computer or whatever they do out there. ...And to us, out here that live out here, this is our, this is our way of life I guess. You know, we know. It’s been instilled to us by our fathers, our mothers” (JT).

The ability to successfully navigate the landscape and harvest natural resources is more than a lifestyle, it is a *lifeline*, a direct path by which traditional ecological knowledge is taught from one generation to the next, preserving the cultural ties and identity that imbue life with meaning. And both the observation of and active participation in subsistence practices is the mechanism by which ecological knowledge is transferred and sustained.⁴⁷⁶ To become truly Dena'ina, carefully learning alongside elders is key, but carefully learning on the land is also key.

Resource harvesting activities are a venue where multigenerational conversations take place, thus serving as opportunities to connect with family and friends. To demonstrate this, George Alexie recalls the basic hunting skills he learned from his family as a young man:

“My dad saw a moose up there, on the mountainside... My dad told [us], ‘Oh yeah, we’ll get it. You know it’s best on a really windy day like this.’ So they can walk right up to the moose. My dad told me (laughs), ‘Oh yeah, we’ll wait until blow east wind.’ Next day, calmer than heck! My dad finally went up there and killed it” (GA).

In the past, young children accompanying adults on subsistence trips would be expected to contribute to the community effort of resource gathering, not only to contribute labor, but also to learn.⁴⁷⁷ Young boys and girls learned specific skills depending on who they spent time with. For instance, Andrew Balluta remembers that at summer fish camp he learned to harvest and preserve fish while assisting his mother: “I followed my mom everywhere she went by boat, helping her by pulling in the lead lines, holding the rope from shore while the adults set the seine, hanging fish, tying fish back bones, cooking food for the dogs, and cutting wood for the smoke house...” (AB in Ellanna and Balluta⁴⁷⁸). Most skills were understood to be gender-specific. For example, it was typically boys who learned how to navigate watercraft and operate fish traps. They would learn these basic skills primarily from their uncles, but also from fathers and grandfathers by traveling with them during excursions. Mary Hobson describes how boys stayed with their uncles to learn basic skills; stating: “that’s the ones who learned how to—uncles and grandpa and dad. Work on their canoes and fish traps” (MH 1998). In the evenings, young girls have traditionally learned to tan hides and to sew. Agnes Cusma remembers this time spent with her mother and grandmother:

“In the evenings you know, like my mom used to sew and my grandma. And teach us how to, how we could tan the skin. You know, use that rock on the skin and then after we get done with that, why then they wet it and we have to use that vashla” (AC 1998).

Both young boys and girls were expected to pick berries alongside adults. Agnes Cusma describes how she accompanied her parents and how she was taught where and how to pick the fruit:

“Well, we just followed our parents like picking berries. They used to take us out, give us buckets and tell us which way we had to pick berries and pick it clean. And then when we get home, our grandmas and them would tell us that that’s how we save our food. Go out and pick the berries and put it away” (AC 1998).

In traditional contexts, young people have had many incentives to learn these skills. “Good providers” are highly valued in the community.⁴⁷⁹ So too, inland Dena'ina who continue to pursue the traditional subsistence lifestyle are often held in high esteem by the community, especially if they are generous with their catch. They are often regarded as people of integrity.⁴⁸⁰ On the other hand, those who lack the opportunity to engage with the land, such as through traditional harvesting activities, are noted to sometimes struggle with their identity—both as people and as inland Dena'ina. Shaw provides this example from a youth in Nondalton:

“[One Nondalton youth] tried to get his friends to go hiking up the mountain with him, but they did not always want to go. With nothing to do, from his viewpoint, he was nothing as well, and therefore could say little about himself. Thus, activities—especially those done with others—appeared to greatly influence, if not define, the youths’ sense of *who they were*.”⁴⁸¹

It is through the practice of traditional skills, guided by knowledgeable adults upon the landscape, that the knowledge required to live from the land is acquired by the next generation. All of these skills were and continue to be integral not only to physical survival, but to the retention of a culturally-based identity of young inland Dena'ina in Nondalton, and the building of inter-generational and communal connections that have inestimable value beyond subsistence.

Beyond matters of TEK and competence at subsistence tasks, the cultural, social, and psychological value of these subsistence practices cannot be measured economically. Subsistence practices bring people together on the landscape to pursue common goals: hunting, trapping, gathering, maintaining equipment, and sharing information.⁴⁸² These practices foster inter-personal relationships and communal ties, as well as connections to history and identity, and the deeper underpinnings of both, as codified in Dena'ina oral tradition learned over a lifetime:

“Sometimes they say over here, it takes a whole village to raise one child. It takes everybody. So you see, it’s just a lot more complex than we will ever know. You have to live it and breathe it. To understand Dena'ina people, you have to take a lifetime...” (RD).

Recognizing this, interviewees note that children have long been taken to the Chulitna River Basin, and to Fish Camp, to learn key subsistence skills and other types of cultural knowledge. Chulitna was especially important for transmitting hunting, trapping, travel, and survival skills linked to these practices. There were certain places that served as important venues for this training—mostly linked to the camps and other traditional use areas mentioned above. In more recent times, as motorized transportation allows for fast travel, the geography of this practice has become somewhat more diffuse. Families take along children to learn and to participate in traditional tasks, and the geography of modern subsistence hunting and trapping sites defines the distribution of “teaching places” on the landscape.

While continued access to these places, and continued teaching of tribal youth on the land are seen as essential to the survival of individuals and to the wellbeing of the community as a whole, many elders are concerned that younger people do not receive the instruction needed to maintain their identity or lead a subsistence lifestyle. Some, like Jack Hobson, fear that the younger generation are not forming viable connections to the land, losing not only the traditional ecological knowledge to survive in a challenging environment, but also the very basis of inland Dena’ina identity (JH). Olga Balluta voices a similar view:

“They, they do need a lot of more important things that they should know, that they are not learning like they used to. ...Just like the, some of the food that we used to put away, like the berries for the plant parts. The younger generations need to learn more and more about that, because some of the younger parents didn’t quite learn too much about that. So they need to, they need to learn all that” (OB).

Beyond this, many elders express concern that young people are not learning the fundamental skill required to safely travel through the land, such as in areas where the ice is often thin and unpredictable: “when you’re traveling... don’t travel in foul weather around the lake and in wintertime...like when it’s snowing out [you have to] know when to travel when the weather’s right. Don’t take chances” (CD). Interviewees spoke, too, of the importance of teaching young people to make camps quickly if they get stuck in snowstorms or break through the ice. They note that winds can suddenly become severe and arrive from unexpected directions as they pass through the complex terrain of the study area, creating sudden snow drifts, whiteout conditions, and other effects. Threats like encounters with brown bear in the brush require time-honored skills and knowledge:

“The young people got to know about this. ...Brown bears, you got to watch out on kills. Because a brown bear will protect a moose kill and you got to make a lot of noise when you’re walking in the brush. Don’t just walk through the brush quietly. You have to make some noise because you don’t know what you could be walking up on. [Especially places like] our moose kill sites. They dig a little hole and they just cover up all the moose with dirt and ground” (CD).

Black bear are also said to be an underappreciated danger.⁴⁸³ As Clarence Delkettie points out, “if your kids or people around there don’t know about stuff like that they’ll be in trouble. And this could save someone’s lives if people will talk [to kids] early, how to travel around” (CD). Young people also express the sentiment that these skills are essential, and valued.⁴⁸⁴ Some interviewees express a desire to see young people trained in survival skills in a more organized way to combat the loss of such key teachings regarding not only subsistence, but personal safety on the land.

Yet there are other rules that also deserve attention. For example, children are traditionally told not to run around or yell at night, as such behavior is still considered objectionable to many elders. The times of dusk and immediately thereafter are traditionally said to be the most powerful times of the day, when animals, spirits, and spiritual forces are in motion. At the onset of puberty, women were told to temporarily avoid going barefoot in the water, engaging in rough play, stepping over men’s clothing, or cutting fish, for example. During menstruation, women are to avoid cutting or even stepping over fish that is being processed. All of these practices are said to have practical as well as spiritual values that are being quickly forgotten—often to the dismay of tribal elders.

So too, some note that the loss of place-based cultural knowledge can actually undermine the ability of a community to show proper respects, as in the careful hunting and butchering of animals. Speaking of young people who have not received proper training in the skills of the hunt, Randy Kakaruk says, “when they do go hunting, more of the animal will be wasted because they wouldn’t know what to take and what we consider edible,” and this is disrespectful (RK). As discussed above, disrespectful behavior toward animals is repaid in time. Thus, this loss of cultural knowledge is seen as having the potential to erode the relationship between humans and game species, ultimately eroding the land and resources of the Dena’ina homeland.

In this context, returning to the land and to traditional values is understood to be especially urgent. As a corollary to this, subsistence hunting and fishing are widely described as restorative. Such practices enhance the self-sufficiency and self-esteem of individuals and communities, while combating many social and spiritual ills:

“Guys around here that I grew up with, same age as me, they don’t even hunt and trap or—they don’t even leave the village to hunt. Everyone is just too stuck...and that’s not right... So I try to hunt and trap and fish and live off the land... There’s two forks in the road and one is to bring the kids up the right way to know about the land and respect amongst each other. And there’s the other fork in the road where you don’t want to listen to the elders and go your own one way or whatever and that’s the wrong way. Because the elders were here first. They know about everything and they lived through it and they seen everything ahead of us” (CD).

Whereas the transmission of traditional ecological knowledge was once accomplished through the process of daily immersion, today young people are required to take part in a Western educational system that too often removes them from their elders and the land. As a result, many interviewees suggest that the community must make concrete efforts to educate young people in traditional skills, ideally in places where they can at once access the teachings of the elders and the teachings inherent in the land. They suggest keeping young people connected with both their culture and environment through active participation in subsistence practices, and through organized educational events at Fish Camp, Beaver Camp, and Kijik Camp—the first two within the study area.

Active participation in subsistence activities creates a venue where multigenerational transmission of knowledge can occur. Harvest camps, especially Fish Camp, are distinct annual events during which children, adults, and elders are reunited at a central location for the outward purpose of subsistence harvesting. During this time, environmental knowledge and skills are transmitted as many hands work together, simultaneously creating opportunities for the creation and maintenance of familial and inter-generational socio-cultural connections.⁴⁸⁵ The transmission of cultural and social knowledge at these harvest sites often intensifies during the non-active hours. This happens during the evenings when members of each camp come together to share stories, oral histories, songs, and other narratives—sharing some of the community’s most valued knowledge.⁴⁸⁶ While especially happening at major gatherings, such as at Fish Camp, this happens even in small ways, such as on family allotments, where families gather to share labor, resources, and traditional knowledge. June Tracy describes learning in this way from her father while at the family allotment: “He’ll sit on the beach and we’ll have camp fire and then he’ll tell us stories about the area or what happened, or who was here [historically]” (JT). It is in these many venues, linked to the land and resource harvests, that culture continues to be carried forward.

Healing Lands, Healing Resources

Access to the lands and resources of the study area is widely perceived to be an antidote to the social ills, cultural erosion, and economic changes all communities face. Nondalton residents feel many of these threats acutely. Many inland Dena’ina interviewees express concern that key cultural values, such as respect of elders or practices of sharing, have declined in recent years. This phenomenon—largely attributed to residential schools, religious conversion, cash economies, and other institutions from the outside world—has brought about individualism, materialism, and more than a little isolation and despair. This sentiment was reported a generation ago, and persists markedly in modern times (Ellanna and Balluta 1989[2]8). Interviewees suggest that the adoption of Euro-American values of individualism has been corrosive, in a village setting in which everyone was historically interdependent for the most basic necessities of life. Gladys Evanoff faults, in part, the expanding centrality of the cash economy, and the declining role of traditional communitarian values:

“Only thing they worry about is money. If they won’t do anything for nothing, if they’re gonna have a culture camp they gotta get paid, every person that work there gotta get paid and long time ago it wasn’t like that. We work together, shared things and that’s all lost, there’s no more sharing” (GE).

As Clarence Delkettie explains, this change was foretold by elders of a generation ago, who witnessed the cultural effects of residential schools and other encounters with enforced acculturation:

“Nowadays it seems like everybody’s just out for themselves you know, it’s like your next door neighbor wouldn’t even help you or somebody down the road. And that’s not right. It’s like people is like trying to be more independent and don’t want to help nobody.... My dad said it’s going to turn out like this, and he was right. He said [of] the whole village—he said the old folks said it’s going to happen like this; he said everybody is going to turn

independent and nobody would want to help each other, and it’s going to turn out like that. And people will be kind of like against each other and talking about one another, and that’s how it turned out” (CD).

As community interdependence and sharing decline, people feel isolated and increasingly vulnerable to economic, environmental, and social perturbations. Linked to this are concerns about the growing threats of alcohol and drug abuse, with roots in such historical traumas as epidemics, the residential school experience, and the economic and social challenges of modern times. As Clarence Delkettie observes, alcohol abuse can be deadly, in myriad ways:

“People around here died from it you know, just from drinking and whatever accidents...fall through the ice and do whatever. ...They just went down the wrong road and they wouldn’t listen to their parents and want to drink and run around and have fun. Well, where did that lead them? They’re not with us today. [It’s] lost time and they’re teaching the younger generation the wrong way to go. ...You don’t drink and go out and hunt and handle guns” (CD).

In this context, many of the places addressed in this book serve as “healing landscapes.” Some interviewees spoke of the healing power and potential of the landscape. In general, interviewees often speak of needing to “get back out on the land” during times of crisis—a place of solitude, refuge, familiarity, personal competence, spiritual potential, and relative food security. “Being on the land is uplifting...it is spiritual...when I am there for long, I feel balanced, I feel centered” (KE). While places identified as “sacred places” in this book are said to perhaps have special potentials for healing, these potentials are understood to be broadly distributed across the landscape, within and beyond the study area.



Douglas Deur interviewing Nondalton elder Gladys Evanoff regarding the role of resource sharing in Dena’ina tradition, Nondalton Fish Camp. KAREN EVANOFF PHOTO.

Traveling through the Chulitna River region was said to help people work through personal pain and grieving. Travelers recall people they cared about who used the land, who occupied certain camps, who traveled and harvested resources with them there in their youth. Seeing ancestors’ handiwork, in the form of old trails or time-honored campsites, allows people to maintain a kind of connection with not only the people, but the values of earlier generations. By being on the land, people are able to think unfettered and uninterrupted about people and events they partially suppressed due to the pain of loss—the loss of people, the loss of tradition, the loss of lifeways. For many people, going to the Chulitna and other places nearby is an antidote to the conflict, the effects of residential schools, and alcoholism. Some return to

hunting and trapping on the land as part of a larger recovery from such traumas. It is, in many respects, even a “therapeutic landscape.” This has always been true, even in times before contact when people traveled to the Chulitna region from Kijik and other historic villages. Children in crisis were often taken to the Chulitna Basin and trained in subsistence skills and other cultural practices as part of their recovery. Today, however, the need is more urgent, the issues often more complex.

During times of deep hardship, special ceremonies were designed to create balance on many levels—physical, emotional, and spiritual. When loved ones died, people were told they must “cry their hearts out” as part of the funeral events, as it was said “if they keep that in, it will make them sick” (GE). People traditionally held potlatches to memorialize the deceased, to help “cleanse” the spirit of the deceased and their community, and to distribute that person’s belongings. (To underscore the fact that the memorial potlatch is partially a ritual cleansing of the deceased, some elders assert it is wrong to hold memorial potlaches for deceased children, as “their spirits are already clear” [GE]). In recent decades this has become a shorter funeral and “giveaway” ceremony. Now, as before, people make food and traditionally manufactured items (such as beaver skin goods) for the event—a process that is said to be healing in its own way, giving people a focus for their energies and a reason to come together in common purpose concurrent with mourning. As part of the healing process, a relative must go hunt to provide food for the funeral and giveaway—a hunting practice that is understood to be as much about ritual as it is about subsistence. This practice continues to this day, and has sometimes caused friction with regulatory agencies (such as ADF&G) when the ritual hunt must occur outside of permitted hunting seasons and areas.



Eagle pair and nest.

NPS PHOTO / E. WASSERMAN

Conclusions

Cultural Values, Landscapes, & Survival in the Dena'ina Homeland

Inland Dena'ina people have faced many challenges to their traditional subsistence lifestyle and their cultural practices relating to the land. Religious, technological, and economic changes have had riveting effects. In spite of this, inland Dena'ina cultural values and social institutions have remained remarkably robust until recent times. The methods by which the inland Dena'ina travel on the landscape and the means by which animals are harvested have changed, for example, but the cultural and spiritual significance of the practices have changed very little (Evanoff 2010). At the core of this cultural endurance is the practice of subsistence resource harvesting in the lands around Nondalton—most of these lands being within the study area, from Chulitna River to Sixmile Lake. As Melvin Trefon observed, “Subsistence has always been a cultural issue. ... We get and use animals differently today, but they mean the same thing. Subsistence is our lifestyle and birthright and privilege” (MT in Stickman et al. 2003a:31). Similarly, Andrew Balluta observed,

“Despite the fact that my life has undergone many changes which have affected my use of the land in which I was born and raised, its meaning to me personally and to my children and their children after them and to the other Dena'ina of my village was in no way less important [today] than it was in the past. This was and remains the home of the inland Dena'ina” (in Ellanna and Balluta 1992:189).

Subsistence activities are the principal mechanisms providing the community with food security, a venue for the intergenerational transmission of cultural knowledge, and a sense of common purpose and identity within the inland Dena'ina community.

In sharing this common understanding of the relationship between land, resources, and cultural identity, interviewees agree: the existence and identity of the inland Dena'ina people is contingent upon their continued use and access to the land. Being an inland Dena'ina person means engaging with the landscape—hunting, trapping, fishing, and gathering on the same lands where one's ancestors did the same, following the same trails, using the same camps, seeing the same landmarks, seeing the ancestors' handiwork on the land (Evanoff and Ravenmoon 2013:213). This is not a new observation. In a study by Gaul (2007:145), for example, when asked what it means to be Dena'ina, many responded “interacting with the land and its resources through subsistence practices.”

The idea that subsistence practices might be somehow curtailed, that access to traditional resource lands might cease, is often equated with the end of the inland Dena'ina as a people. Many interviewees commented on this point. Jack Hobson, for example, notes that the loss of these things would erode the community's identity:

“It's just like... taking away our identity if they do something like that... This is who we are, we're cultural connected and subsistence connected to this earth right here and everything around here has some kind of use to us” (JH).

In fact, a number of interviewees attest that if subsistence practices and other traditional uses of the land cease, the entire Nondalton community would collapse. The costs of living in rural Alaska would be too great, the benefits too few. As one consultant states:

“I don't see as many people living here after that because they're living on store-bought food and everything, it's...going to cost more just for freight to get out here; buying the actual food and everything. All the trails would probably grow over and you wouldn't be able to find them anymore; no one would probably use them” (RK).

With the decline of village life, some are concerned that the tribe would effectively cease to exist in any conventional sense. Subsistence and other land uses identified in this study not only provide material, social, and cultural sustenance to the people; these practices are the foundation for the continued existence of inland Dena'ina society. To undermine these attachments to the land, then, is seen by many tribal members as a threat to their existence. As Gladys Evanoff observes, the land “is like part of us”—a key concept, reflected in this book's title. The phrase is not meant to convey symbolism or romanticism: this is a concise truth statement about the fundamental interdependence of a particular people and a particular landscape. The existence of the latter without the former is in many ways unthinkable.

Culture is required for this survival, as are the land and resources on which it depends. Elders interviewed for this study acknowledge that they bear a major share of responsibility for carrying forward the cultural knowledge required to sustain the community's existence and identity into the future. June Tracy asserts,

“[W]e have to say: This is ours! This is my land. This is our land. Let's take care of it the way our ancestors took care of it ...take care of it like you're going to take care of your own house. ...This is ours, we have to make sure that it's taken care of for our children, for our grandchildren, my great-grandchildren's. And it's really up to me as a parent and as a grandparent to educate and let my childrens know this is what we value. This is how we take care of our land, our river, or whatever that provides for us as Native people” (JT).

Concerned about their future, most put their hope in the young people of the community. And there are good reasons for hope. In a recent study of Nondalton youth, 100% of youths in Nondalton between the ages of 10 and 19 reported family participation in fishing and gathering activities, and 80% reported family participation in hunting and trapping. During this study, tribal youth were asked: “What does the land or nature mean to you?” Responses from the group were revealing: “How we live off of [the land] is how it's important to me”; “It's how we survived”; “Everything. It means everything” (in Shaw 2013:131).

Yet enduring knowledge and enthusiasm are only two of several necessary ingredients to cultural survival. If the culture is to persist, there needs to be a continued use of the lands, the resources, the language, the values, and core concepts of Dena'ina people—all activities that can be aided by National Park Service interpretation and management embracing Dena'ina voices and perspectives. The land and resources that are essential to Dena'ina survival are only partially within the community's control, but most lies beyond - on lands managed by the NPS and a range of other landowners and agencies. On this count, there are many actors influencing the outcome of inland Dena'ina life, the future of Dena'ina history. Through continuing conversations and collaboration – bringing together the Dena'ina and NPS – there is still a tremendous opportunity to protect things of enduring value. Specifically, these conversations and collaborations might allow Lake Clark National Park and Preserve to do precisely what was mandated in 1978 when this park was created under Presidential Proclamation 4622: managing the lands and resources of this stunning place in a way that it ensures “the continued existence of this culture.” In this way, the Dena'ina people, as well as the lands and resources now within the park, will continue to endure and thrive into the foreseeable future.



Appendix One: A Preliminary Overview of Compliance Implications

What follows is a cursory overview of certain compliance implications of study findings, anticipating that these findings may be used in future park planning. Any park planning or permitting that might affect park lands and resources is almost surely going to be undertaken according to the terms of the National Environmental Policy Act of 1969, as amended (NEPA, or P.L. 91-190; 42 U.S.C. 4321-4335 and 1979 regulations). This law is directed at the impacts federal or federally-permitted development might cause to the human environment, including the social and cultural relationship of people to the physical environment. Under the terms of NEPA, federal agencies have an obligation to consult with federally recognized Alaska Native tribes (and other Native American tribes) concerning planned actions including potential impacts to culturally important sites and resources. This evaluation draws from nationwide law, policy, and regulation relating to federal agencies, as well as prior studies of regulatory implications of Native Alaska traditional land use by the authors (e.g., Deur 2008, Deur and Evanoff 2013).

Under the terms of NEPA, federal agencies' consultation with federally recognized Alaska Native tribes should be initiated early within the planning of a proposed action in order to avoid delays, to give sufficient time for adequate decision making, and to avoid potential conflicts [40 CFR 1501.2(d)(2)]. Under NPS *Management Policies* (2006) federally recognized tribes (listed in earlier sections of this document, and minimally including Nondalton Tribal Council) would be invited to participate in any project scoping process for planned NEPA studies. NEPA requires that federal agencies request tribal comments on draft Environmental Impact Statements that affect lands and resources of concern to these tribes. The law also authorizes tribes to be cooperating agencies in NEPA compliance.

The discussion that follows presumes that—in the event of any future planning or permitting effort—the NPS will be engaging all of the potentially affected Alaska Native communities as per the terms of NEPA, as well as Executive Order 13175 (on Consultation and Coordination with Indian Tribal Governments); the Memorandum for the Heads of Executive Departments and Agencies (issued by President George W. Bush on September 23, 2004); the Memorandum for the Heads of Executive Departments and Agencies (issued by President Barack Obama on November 5, 2009); NPS *Management Policies*, 2006 (sections 1.11.2, 5.2.1, and 8.5); NPS Director's Order 71A, and other pertinent federal guidance on consultation responsibilities of federal agencies.

Specifically, in this section we briefly consider the findings of this study in light of the National Historic Preservation Act, the American Indian Religious Freedom Act and Executive Order 13007, the Native American Graves Protection and Repatriation Act, and Executive Order 12898. The Archaeological Resources Protection Act of 1979 (ARPA - PL 96-95) is largely beyond the scope of this ethnographic document. Still, this research has identified a number of places of known or suspected archaeological resources and such data may be revisited by park staff seeking to develop or refine comprehensive archaeological databases for the Chulitna-Sixmile study area, aiding the NPS in ARPA compliance.

It is understood that, while these federal laws—and the regulations that operationalize them—represent the cornerstones of federal law and policy regarding modern Alaska Native cultural interests in federal lands, there are a variety of other federal and state laws that would have a bearing upon a full planning or permitting process that might affect the study area. Additional guidance might be sought from the NPS Alaska Region Support Office in Anchorage and the NPS American Indian Liaison Office in Washington, D.C. Again, by necessity, the observations in this section are made tentatively, recognizing that as of the time of this writing there is no specific planning or permitting process underway. Still, these general observations are offered to support such a process, should it occur, and to illuminate some of the general compliance issues suggested by the research outlined in this book.



*Giga gheli "real berry" or Blueberry (*Vaccinium uliginosum*), a staple food plant gathered in specific locations such as Blueberry Hill, near Nondalton.*

DOUGLAS DEUR PHOTO.

National Historic Preservation Act (Sections 106 & 110)

The National Historic Preservation Act of 1966, as amended (NHPA or P.L. 91-190) exists to facilitate the documentation of historical properties, the nomination of such properties to the National Register of Historical Places, and to provide for the consideration, minimization, or mitigation of the effects of federal actions on such properties. Section 110 of the NHPA makes federal agencies responsible for the identification, evaluation, and nomination of properties in their jurisdiction to the National Register of Historical Places; that such properties be managed in a way that considers the preservation of their historic and cultural values; and that similar considerations be given to historical properties that are beyond an agency's jurisdiction but potentially affected by agency actions. In many ways, the current report helps the NPS meet some of its Section 110 responsibilities for the southwestern portion of LACL. Section 106 of the NHPA requires that for any federal undertaking (including any project funded or permitted by the NPS), the NPS must consult with federally recognized tribes at the planning or scoping stage of a project to identify any properties or resources of significance to the tribes that would be eligible for listing on the National Register of Historical Places. Such properties are often, though not exclusively, Traditional Cultural Properties as defined in National Register Bulletin 38, but can also consist of "Cultural Landscapes" or other types of multiple-property entities, such as districts, that include places meeting Bulletin 38 criteria. If, through this consultation, it is determined that National Register-eligible properties may be affected by the proposed undertaking, the agency must consider the effects of the undertaking on them and consult with the interested tribes about ways to "resolve" adverse effects. If adverse effects are expected, the process will involve the development of an agreement document (a Programmatic Agreement or MOA) in consultation with the traditionally associated Alaska Native tribes regarding the means that will be employed to consider and resolve them—to "minimize" or "mitigate" the adverse effects of any proposed federal or federally-permitted action.

Much of the documented archaeological heritage of the Chulitna-Sixmile study area is likely to meet National Register Criterion D and would be worthy of listing on that basis, but a full archaeological assessment is beyond the scope of this study. The NPS has been recording and, as appropriate, nominating such archaeological resources within the Chulitna-Sixmile study area actively since park creation. Many of the locations documented in the course of this book have been entered into park databases concurrent with the research, and the authors hope this book will continue to aid the NPS in addressing its responsibilities in documenting and nominating such sites into the future.

Specific places within the Chulitna-Sixmile study area also clearly appear to warrant National Register listing under TCP criteria as outlined in Bulletin 38. Despite sometimes dramatic post-contact disturbances and changes to traditional lifeways and movement on the landscape, almost every aspect of inland Dena'ina culture is contingent on a constellation of places with particular forms of significance. By any reasonable standard, Nondalton Fish Camp meets the standard for a TCP. Though a subsistence site, this is also the principal venue for rituals related to salmon that are among the most enduring ritual practices in the Dena'ina world. Nondalton Fish Camp is also the principal venue for the intergenerational transmission of cultural knowledge regarding not only salmon procurement, but a diverse range of topics not commonly addressed in other settings. While the State of Alaska, and increasingly the Keeper of the Register, have understandable reluctance to nominate to the register places that are used solely for subsistence purposes, it is unambiguously clear that Nondalton Fish Camp is a pivotal place in Nondalton history and culture. A more detailed nomination document might articulate these multiple layers of significance more completely, relating step-by-step to National Register criteria. Yet many other places are deserving of similar treatment. Indian Point is also widely acknowledged as a place of unique cultural significance, related to subsistence practices but also being a settlement and “sacred place” of enduring importance to Nondalton and other Dena'ina communities. The other locations identified as “sacred places” by tribal interviewees in this document are also plausibly eligible as TCPs.

So too, there are many other places on the landscape that might be eligible as part of a larger Cultural Landscape, or multiple-property nomination. Dena'ina traditional subsistence, social, cultural, and economic life have all been structured around a network of major and minor trails, campsites, and harvest areas. Each of these in turn is marked by physical traces on the landscape: tree blazes, culturally modified trees, cleared campsites, and other anthropogenic landmarks within the traditional Dena'ina area of interest. The maps accompanying this report give a fair approximation of their geography. These traditional use areas are still deeply valued, and are principal venues for the expression and transmission of what Dena'ina people see as core cultural and ecological knowledge.

The Chulitna-Sixmile study area is also distinctive in part because it is the focal point of most terrestrial and riverine resource harvesting activities for the Nondalton community. It also possesses a unique range of resources for the Dena'ina communities of the region. The Chulitna River is the foremost source of two of the most important subsistence species within the Dena'ina world: moose and beaver. Beaver trapping is also concentrated along the Chulitna River, and the trapping of beaver is a principal source of material for some of the few Native craft traditions persisting today—craft traditions that retain a unique position in Dena'ina funerals and other social events. The richness of the study area, especially Chulitna River and the Groundhog Mountain area, sustained Dena'ina communities during some of the most traumatic and pivotal moments in their history, such as during the monumental shift from Kijik to Nondalton in the early 20th century. Almost every major figure in inland Dena'ina history is somehow linked to these parts of the study area. The Chulitna River region is also a relatively unique source of waterfowl, freshwater fish, food and medicinal plants, and other resources. Places such as Groundhog Mountain are associated with myriad cultural activities, including the culturally distinctive tradition of snaring ground squirrels for use as food or clothing.

If the Dena'ina subsistence landscape is evaluated as a district, it will likely qualify under—at minimum—Criterion A of the National Register regulations (see 36 CFR 60.4) due to Dena'ina's deep connection to these linked places on the landscape for particular subsistence practices and social ties. Fish Camp in particular, but also other camps with enduring subsistence and ritual functions, would likely qualify as contributing properties under Criterion A for National Register criteria (see 36 CFR 60.4) due to the places' continued use and cultural significance. The same regulations are likely to apply to trails, from the historically significant Lime Village trail, to lesser trails used over generations to access primary

camps and subsistence harvest areas. The knowledge of these places on the landscape and the corresponding cultural practices are passed down intergenerationally, sustaining not just the individual with food and a sense of identity but also perpetuating key aspects of the culture. Culturally pivotal and fixed harvest areas may be admissible by this standard, such as Blueberry Hill, or Nikovena Lakes. Yet within a broader nomination, broader harvest areas might be considered. If the traditional hunting and trapping areas discussed in this document, such as core moose and beaver hunting areas, were to be evaluated according to National Register criteria, they may also meet Criterion A of National Register regulations for the historic use and sustained importance of these areas. Accordingly, if a district were to be nominated, traditional Dena'ina subsistence harvest areas may also reasonably qualify as contributing properties to a proposed district.

Upon further consultation with NTC, the National Register program, and other interested parties, it is likely that a Cultural Landscape or other multiple-property nomination might link together the essential components of this cultural geography, so that it may be documented, nominated, and managed as a coherent unit. Bulletin 38 specifies that TCPs are places that have an “association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community” (Parker and King 1998:1). Historic districts contain a number of places, buildings, objects or other cultural resources linked by association or function (McClelland 1997). In the case of the Dena'ina cultural landscape, longstanding trails, campsites, and culturally modified trees, along with named places, sacred sites, and other places documented in this book all serve as physical points anchoring Dena'ina identity. In a similar way, these physical elements in the landscape might be the anchor points to a National Register district. Accordingly, the natural associations and vital cultural connections between places and resources on the inland Dena'ina's subsistence landscape may meet the standard for a historic district that meets National Register criteria, and is thus subject to the National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq).

A Cultural Landscape nomination might allow the NPS to effectively “capture” the range of structures and physical elements of the landscape, along with all of the cultural knowledge and intangible values that are potential contributions to the study area's National Register eligibility. In addition to seeking guidance from the NPS Cultural Landscape program, documenting the cultural landmarks of the Chulitna-Sixmile Basin as a Cultural Landscape may require a review of National Register Bulletins 18 and/or 30, National Register Preservation 36, the 1996 NPS *Guidelines for the Treatment of Cultural Landscapes*, as well as other pertinent guidance on cultural landscape documentation and nomination. Whether pursuing a TCP or Cultural Landscape nomination, it is likely that the criteria identified for National Register eligible contributing resources as specified in National Register Bulletin 38 would be appropriate as the basis for inclusion of any individual site or resource within a larger multiple-property nomination centered on such landmarks as Nondalton Fish Camp, Indian Point, and the lower Chulitna River. Potentially eligible areas would include not only National Park Service managed lands, but also Native corporation, trust, and allotments lands situated within and adjacent to NPS land. State and other federal lands might also contain contributing resources. In this light, consultation and a collaborative documentation effort would be warranted.

Employing terminology of the NHPA and National Register Bulletin 38, certain places associated with “artistic traditions” of Native Alaskan communities have been utilized along the river historically and today. Beaver furs, taken especially along the Chulitna River, are still widely used in the manufacture of traditional clothing such as hats and mittens—one of the principal artistic traditions still found in Nondalton. Certain individuals still participate in shared labor in the production of these items, with men trapping for furs that are used by women in clothing production. These are not only made for sale or personal use, but for gifting and redistribution in such enduring and ritualized settings as “giveaways” at funerals. Porcupine quills, birch bark, and willows—perhaps the three other most important natural products used in modern inland Dena'ina crafts, are gathered largely in the study area, especially along shorelines of the Chulitna River, Chulitna Bay, and the woodlands and hills just west of Nondalton and Nondalton Fish Camp.

The “integrity” requirements for National Register eligibility are worth considering as part of any review of TCP eligibility. As defined by the Code of Federal Regulations, integrity measures are defined as including “integrity of location, design, setting, materials, workmanship, feeling, and association” (36 CFR Part 60). National Register Bulletin 38, as currently

written, narrows these criteria to two: “integrity of relationship” and “integrity of condition.” In the case of potential Traditional Cultural Properties, “integrity of relationship” suggests that a place continues to be viewed by particular historically associated populations “as important in the retention or transmittal of a belief, or to the performance of a practice,” usually for some significant portion of traditional practitioners within a community (NPS 1990). Secondly, “integrity of relationship” is meant to indicate that a site is singular and has a unique role in the retention or perpetuation of these cultural activities—that there are not, for example, other sites in the traditional territory of a tribe that can be used for what are essentially the same functions. It is clear that most of the Chulitna-Sixmile study area still exhibits “integrity of condition,” as sites essential to continued use are present. Accelerated visitation and development might undermine the integrity of condition in ways that require consideration of impact minimization or mitigation measures, but so far the landscape retains all of the elements required to hold enduring cultural meaning to modern Dena’ina people. So too, the Chulitna-Sixmile study area still clearly exhibits extraordinarily strong “integrity of relationship,” with deep and unique associations between Alaska Native communities—Nondalton, principally—and the lands and resources central to the continuation of certain types of cultural and historical knowledge and practice. The study area, and the individual sites named and mapped within it, is clearly understood to be absolutely essential in the transmission of belief and the performance of practices necessary for Dena’ina cultural survival. Nondalton Fish Camp, extending along both banks of Newhalen River, is an exceptionally good example of a place meeting these criteria, but many other places named in this book are integral to the larger pattern of cultural land use, material and ritual practices, and belief.

In any nomination process, the contents of this study can be edited and incorporated into one or more National Register context statements.

American Indian Religious Freedom Act & Executive Order 13007

Both AIRFA (Public Law No. 95-341, 92 Stat. 469) and Executive Order 13007 explicitly protect the religious interests of Alaska Native communities. The American Indian Religious Freedom Act of 1978 (AIRFA) affirms that the constitutionally guaranteed religious freedoms shared by all U.S. citizens also apply to Native Americans, including Alaska Natives. The law is in some respects a corrective action undertaken after almost two centuries of federal or federally-sponsored efforts to undermine traditional American Indian religious practices. This law states that it is the “policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise [their] traditional religions...including but not limited to access to sites, use and possession of sacred objects...” that are needed for the “exercise [of] traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians.”

The closely related Executive Order 13007 (Sacred Sites) protects Native American access to sacred sites, as well as the physical integrity of such sites. Specifically, this Executive Order instructs federal agencies to “(1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites.” In order to accommodate this provision on lands managed or affected by federal agencies, the identity of such sites must be established through consultation and be substantiated through information provided by federally recognized tribes or an Alaska Native individual of such a tribe “determined to be an appropriately authoritative representative of an Indian religion.”

As noted elsewhere in this document, Russian Orthodoxy remains central to community life, though many elements of traditional Native religion are seamlessly combined with Orthodox values and beliefs within Nondalton and other inland Dena’ina communities. Here, we briefly address certain religious and ceremonial practices that seem relevant to park management and potentially protected under AIRFA or EO 13007. Certain places clearly have had ritual significance to

past communities and may have some role in the ceremonial practices of present and future generations. Many of these sit just beyond the park boundary. The “shaman’s grave” site is one such site. The locations on Groundhog Mountain where people gather spring water, or oral traditions describing a family’s death are other examples. Priest Rock and “Votive Rock,” north of the study area, are two exemplary sacred sites, worthy of attention even if they are not documented in detail here. Fish Camp, the venue of so much ceremonial activity, is clearly a site with ceremonial value in addition to utilitarian value, though it lies outside of the park. Other campsites that are still used for group activities—Kijik, Beaver Camp, and others—are also sites of significant ritual activity. Many Nondalton residents might also include locations such as Indian Point on any short list of “sacred places” within the study area. The section on sacred sites in this book, combined with an assessment of map and GIS data produced concurrent with the project, identify these areas more precisely.

The belief that direct encounters of living people with human remains can cause spiritual distress is also potentially salient. Visitor contact with such sites, or other management activities that harm them, could conceivably create frictions that rise to the level of AIRFA applicability. It is clear that Alaska Natives may require access to burial sites within the study area, and may possess the right to protect or participate in the reburial of human remains exposed to erosion or other damage as part of their free exercise of traditional religion as guaranteed under AIRFA. It is debatable, but conceivable, that federal planning that might reasonably be understood to facilitate accelerated erosion at burial sites may be inconsistent with the provisions of EO13007 prohibiting “adversely affecting the physical integrity of sacred sites.”

Certain practices associated with the placement of food, bones, and other materials on the land and in the waters of the study area as part of traditional subsistence-related rituals is also likely be protected activity under the terms of AIRFA. As noted elsewhere in this book, Dena’ina subsistence harvesters sometimes leave offerings at kill sites, and return bones and other unused portions of the kill to the lands or waters associated with the animals’ genesis—as a show of respect for game, the Creator, or ancestors. Such rituals are coincident with the killing and butchering of fish and game. The placement of bones in the water is presumed to serve a spiritual function and might therefore merit consideration as a practice protected under the terms of AIRFA. The placement of human remains or body parts (such as the umbilical cord of newborn infants) on the land are also said to be religious practices, likely protected under these legal instruments. There may be other types of offerings or activities that were unreported in the course of this research, so consultation on the matter of traditional spiritual activities or offerings may be warranted if the NPS considers management actions that might affect or place limits on these practices. The question of how, or if, Russian Orthodox sites might be addressed under AIRFA and EO13007 remains unclear.

Native American Graves Protection & Repatriation Act

The Native American Graves Protection and Repatriation Act of 1990 (NAGPRA, or P.L. 101-601 and implementing regulations) also applies to planning and permitting on federal lands. This law exists to repatriate Native American (including Alaska Native) human remains, funerary objects, and certain types of cultural items from federal or federally supported collections to appropriate Native American communities. More relevantly to the Chulitna-Sixmile study area, NAGPRA also protects the integrity of Native American burials on federal lands or on lands that might be affected by federal or federally-permitted actions. This facet of NAGPRA seeks to protect Native American graves and encourages in situ preservation of archaeological sites containing human remains and associated funerary objects. The law includes provisions for the disposition of human remains and cultural items discovered inadvertently, either accidentally or through planned excavations, on park lands. Under Sections 3002(c), 3002(d), 3003, 3004, and 3005, NAGPRA regulations require consultation throughout certain processes: before intentional excavations, immediately after inadvertent discoveries, before the completion of inventories, and upon the completion of summaries of those inventories. There are many places



within the Chulitna-Sixmile study area that contain, or can be reasonably expected to contain, human remains. All former village sites identified in this book, as well as camps and allotments, can be expected to contain burials, including both formal cemeteries and less structured groups of burials. Many burial sites have been documented in the course of this research, and are indicated in project maps—now incorporated into the GIS layers maintained by the park. Recognizing that elders consistently report a tradition of burying the dead *in situ* at the place of death, and refer to the shorelines of the study area—the Chulitna Riparian especially, as “one long graveyard,” it is also highly likely that human burials may be found in areas not currently documented in park map and GIS sets. Information contained in the section of this report addressing burials seeks to characterize Dena’ina burial practices to guide future detection and protection; an analysis of geographical patterns in the GIS datasets produced for this project are also likely to be helpful in establishing the types of landscapes most likely to contain human remains.

Potential visitor effects or other indirect effects of land management on human burials may be significant to future planning within the study area. The exposure and dislocation of human remains by riverbank erosion, for example, remains a topic of concern among some Dena’ina elders. If human remains are exposed, consultation with traditionally-associated tribal governments would be required; repatriation or *in situ* reburial may be prescribed through such consultation. It is also clear that any human-induced effects on burials is perceived to have adverse spiritual impacts potentially regulated under other federal laws and policies. Any federally-permitted activities that have the potential to accelerate the erosion of lands

containing human remains may require consideration and some level of remediation under the terms of NAGRPA. So too, any direct visitor disturbance of burial sites may require remediative planning and monitoring, including both intentional damage to such sites (such as vandalism and looting) or unintentional damage (such as camping atop burial sites while using ground-penetrating stakes or pits for human waste).

Dena’ina traditionally bury the umbilical cord of new babies in a special location—often in or below trees—and this has often been done in the study area. It is unlikely that these would be well-preserved, let alone recovered. If encountered, however, such body parts are sometimes treated as admissible as “human remains” under the terms of NAGRPA; their discovery is likely to require consultation and possible repatriation proceedings.

Executive Order 12898 (Environmental Justice)

Executive Order 12898 (Environmental Justice) is a W.J. Clinton-era executive order that has been of growing importance in federal planning and permitting assessments—spurring both department-level regulation as well as separate “environmental justice” sections of Environmental Impact Statements for federal actions such as land use planning and permitting. This Executive Order limits federal or federally-permitted actions that might have a disproportionately negative impact upon minority populations, including but not limited to Alaska Native communities. Specifically, this EO specifies that “to the greatest extent practicable and permitted by law...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States” including populations that utilize resources affected by federal lands and permitting actions. The EO explicitly references federally recognized tribes and gives the Department of the Interior primary responsibility for insuring compliance with the EO within programs affecting these tribes.

It is clear that there is a unique and enduring association between the Alaska Native communities of the region—Nondalton, but also, at minimum, Lime Village, Stony River, Iliamna, Pedro Bay, Newhalen, and possibly Tyonek—with the lands and resources of the Chulitna-Sixmile study area. Inland Dena’ina people have been, and remain today, by far the foremost users of lands and resources within the Chulitna River Basin, and of lands downstream through Sixmile Lake to Fish Camp. The relationship of the Euro-American community to these lands and resources is simply not comparable in its antiquity, scale, cultural significance, social significance, economic value, or role in maintaining group identity, to name but a few measures. These Native communities would also meet the EO12898 standard as being “minority” and possibly “low income” communities. A clear argument can be made that any adverse effects of federally planned or permitted actions may meet the threshold of having a “disproportionate adverse effect” on these communities relative to non-Natives under the terms of EO12898. For example, if a specific federal policy, permitting action, or planning decision results in a measurable increase in traffic along the Chulitna River that might, in turn, affect the integrity of subsistence resources, Native access, allotments or cultural sites, and it can be demonstrated that these adverse effects are not shared equally by non-Natives—such as the non-Native people of the Port Alsworth or non-Native visitors—this would be inconsistent with the guidance in EO12898. In such a case, the agency may be required to demonstrate that it has undertaken efforts to minimize or mitigate those effects that disproportionately affect the Alaska Native community “to the greatest extent practicable and permitted by law.”

Alaska National Interest Lands Conservation Act

The Alaska National Interest Lands Conservation Act of 1980 (ANILCA) was responsible for creating Lake Clark National Park and Preserve in its present configuration, as well as a number of other NPS units throughout Alaska. There are a variety of management and compliance implications of ANILCA that pertain to the Chulitna-Sixmile study area. Among the most critical of these implications is a mandate to define what constitutes “traditional” activities within the Chulitna-Sixmile study area. Under the terms of ANILCA, and the regulations and policies written to articulate its applications on park lands, traditional activities are largely “grandfathered” into ANILCA parks, as are the modes of transportation required to conduct traditional activities. Superintendents ordinarily have the discretion to restrict the continuation of traditional activities, only when it has been demonstrated that such activities (and the access required to undertake them) have an adverse effect upon park resources or public safety (see, e.g. ANILCA Section 1110(a), 43CFR36.11). The term “traditional” in this sense is critical to the language of ANILCA; the term is pivotal, but remains undefined, in several places within the language of ANILCA, including the text of Title 2 (National Parks), Title 8 (Subsistence Management and Use), Title 9 (Implementation of Alaska Native Claims Settlement Act and Alaska Statehood Act), Title 11 (Transportation and Utility Systems In and Across, and Access into Conservation System Units), Title 13 (Administrative Provisions), and Title 14 (Amendments to the Alaska Native Claims Settlement Act and Related Provisions). Since the passage of ANILCA, the Secretary of the Interior and the NPS have assessed the implications of the term “traditional” as it applies to park management. Over time, as a result of new regulations developed in response to ANILCA (36 CFR 13), and key litigation (most notably *Alaska State Snowmobiling Association v. Babbitt*) the NPS has interpreted the presence or absence of an activity by 1980 as the effective ‘litmus test’ for whether an activity is determined to be “traditional” and therefore an admissible activity within modern NPS units.

In this light, nearly all of the activities described in this book are likely to meet the standard of being “traditional” activities under the terms of ANILCA and related regulations, as almost all activities predate 1980. The long history of permanent human occupation and use for a diverse range of activities and resources, together contributes to a broad interpretation of what is likely to constitute “traditional” activities in this context. As such, all of these activities undertaken by Alaska Natives within the Chulitna-Sixmile study area—if reviewed formally by NPS staff—are likely to be deemed admissible activities for traditionally-associated Alaska Native communities within LACL boundaries for the foreseeable future. This would include (but not be limited to) such activities as hunting, fishing, trapping, berry picking, gathering firewood, building camp structures, and holding social gatherings, and would potentially involve (but not necessarily be limited to) the Alaska Native communities addressed in this report, including but not limited to Nondalton. Transportation to access these resources and activity areas is also likely to be “grandfathered” into park management unless adverse resource effects can be substantiated (see Deur 2008).

Park staff cannot always assume that a practice that meets the threshold of being “traditional” under ANILCA is well documented in past anthropological publications; in this respect, the assessment of traditional activities requires consultation with tribal members, and sometimes a review of existing sources. Members of the inland Dena’ina community have worked through such venues as the Subsistence Advisory Committees to discuss concerns, and even identify “traditional practices” that were previously unknown to most park staff. Rick Delkettie, for example, showed NPS staff how Dena’ina people traditionally construct fish traps, so as to establish that this is among the subsistence practices still allowed in the park (RD).



Appendix Two: Future Needs & Recommendations

We turn to the question of land management, and of federal laws and policies that might affect the outcomes of the inland Dena'ina quest for survival on their traditional homeland. The current research indicates many future needs, some of which are summarized here:

NTC Cultural Archive—A number of project participants note a need for the creation of a cultural archive to be housed in Nondalton and to serve as a resource to tribal members and to the Nondalton Tribal Council (NTC). Too often, interviewees suggest, studies of the Nondalton community contain useful information, but are unknown, inaccessible, or otherwise not useful to tribal members who need to access the information. This archive might include a comprehensive collection of not only reports, but transcripts, maps, and other materials from studies involving Nondalton people, as well as their traditional lands and resources. In the development of such an archive, one might track down documents that have proven a bit elusive in the current effort, such as Bureau of Indian Affairs files pertaining to AtNCSA land claims. Such a collection would not only be compiled, but then organized and perhaps indexed so that the material is easily searchable by keyword or topic by archive users. Relating to this recommendation, a few individuals recommend the development of a Nondalton Cultural Center, bridging communities from the Lake Clark and Lake Iliamna area, providing educational, museum, and library facilities relating to Dena'ina natural and cultural resources.

Nondalton Research Informed Consent Process—Some project participants note that many researchers pass through Nondalton seeking information, including the staff or consultants for a diverse range of state, federal, private, and Native stakeholders. There has been a flurry of activity relating to proposed mining in and around the study area. Researchers' motives, objectives, methods, ethical standards, and disclosure practices vary significantly. Some researchers operate in direct and formal consultation with the Nondalton Tribal Council and some do not; some deliver all reports and data back to the community through the NTC and some do not; some seek NTC input before disclosing Nondalton data or intellectual property publicly, while others do not. In several cases in the course of this study, the project team has encountered researchers on unrelated projects who have violated, or nearly violated, the letter and intent of federal law and policy relating to the sovereignty of tribal nations and the consultation responsibilities that exist when conducting research with tribal governments in the United States. Recognizing this, it is strongly recommended that the NTC, in consultation with the NPS and other frequent research collaborators, develop a standardized policy toward research and researchers working with the Nondalton tribal community. This policy might include specific ethics guidelines, informed consent procedures, a review process allowing NTC comment on research proposals and products, and guidelines for control of and access to gathered information. Mechanisms for limiting noncompliant researchers' access to enrolled members of the Nondalton tribal community may also be included in such a policy.

Policy or Coordination on the Transfer of Native Allotments—Some Nondalton families, in need of money and no longer using their allotments as regularly as they did historically, have been selling their allotments within the study area and beyond. The National Park Service generally seeks to purchase allotments interior to the park, while recreational users, developers, and charter operators have all pursued the purchase of allotments as well. Some elders protest that every time an allotment is sold, the community loses a toehold on the land. In places such as the Chulitna Bay region, the loss of allotments could significantly undermine a range of traditional practices associated with the lower Chulitna and the nearby Lake Clark shoreline. Some families and tribal leaders find this alarming, and the NTC has explored other alternatives. Options include the NTC cooperating with other stakeholders, possibly the NPS, to raise funds and acquire title to such allotments—then developing a coordinated management plan for these holdings that is consistent with the



needs of traditional land users, while also taking into account how the lands relate to park operations. Options might also include increased coordination between the NTC and the NPS in the event that NPS seeks to purchase allotments—effectively “grandfathering” traditional uses into those lands even if title is transferred to the agency.

Improved Coordination between Nondalton Stakeholders—Many interviewees note the need for improved coordination between NTC, Kijik Corporation, and the National Park Service on land management matters of shared interest and concern. Some also call for increased involvement of subsistence users and other people regularly on the land on the Kijik Corporation board, so that subsistence considerations are actively balanced with other economic concerns in future land and resource planning within the corporation.

Cultural Landscape Inventories and Planning—The current study and other studies addressing inland Dena'ina culture, as well as the accounts of many tribal members, provide an abundance of data regarding cultural landscapes within the study area. There are modified landscape features such as trails, camps, and culturally modified trees, as well as a wealth of intangible connections between Dena'ina people and the landscapes of their home. For this reason, tribal and agency representatives both acknowledge the need for a Cultural Landscape Inventory of the study area, to document those landscapes and associations, as well as to provide for their proper interpretation, management, and nomination to the National Register. Such efforts would require, for example, detailed mapping, at a level not attempted here, of places of importance such as Nondalton Fish Camp. Tribal and agency representatives also note similar needs in nearby areas such as Kijik and the Telaquana Trail. A Cultural Landscape report is currently proposed for the former and underway for the latter.

Traditional Values Documentation—Many tribal interviewees note a need to continue documenting traditional Dena'ina values as they relate to the landscape—not only for the management and protection of these places, but also for the education of tribal youth and, by extension, the preservation of cultural knowledge on these themes. With this in mind, such documentation might be organized in formats approachable and understandable to tribal youth, as well as to outside stakeholders who influence land and resource issues affecting inland Dena'ina people. Values and perspectives relating to the land are often unspoken in everyday Dena'ina discourse. Yet these teachings are said to be revealing, often profound, educational, and inspiring when stated as key principles relating to modern issues, ideas, and concerns: “When I hear stuff like this it fills me up. It’s this stuff...that’s important. It’s who we are” (KE). The ongoing “Dena'ina Expressive Culture” project may help to partially achieve some of these goals, but there may be need of educational and interpretive products sharing the outcomes of that project with nonspecialist audiences. Accordingly, some interviewees propose developing guidebooks on traditional Dena'ina practices and values, as well as, for example, interactive maps showing placenames, along with images and stories of culturally significant places and landmarks. Some also propose the development of an ethnobotanical guidebook, linked to locally useful plants, including seasonality and location information meant for active plant harvesters. While Kari (2003) provided a general Dena'ina ethnobotany, material that is topically and geographically pertinent to Nondalton and other inland Dena'ina communities would aid in the widespread adoption and use of such ethnobotanical information.

Organized Educational Events for Tribal Youth—A number of interviewees strongly recommend developing additional organized educational events for tribal youth, beyond those already underway. Some recommend teaching traditional craft skills. Many others speak of sharing Traditional Ecological Knowledge and geographical knowledge that might enhance food security and the personal safety of tribal members. A few also mentioned the value of teaching young people traditional dog and dogsled skills, proposing that the community possibly share a team for which youth are responsible. While many of these activities are happening within Nondalton, some occur on lands that are now in, or interior to, the park. LACL has supported a summer culture camp in recent years in partnership with Nondalton Tribal Council. In the context of rapid change in culture, technology, and communications, young people do not have the same knowledge as their elders. Culture camps can be an important step to cultural learning, identity, and continuity. Coordination between tribes and the NPS on matters of access, technical and logistical support, and funding may ensure that these events continue to support tribal educational objectives into the foreseeable future.

Collaborative Research Projects—LACL Cultural Resource Program staff have worked collaboratively with Dena'ina communities in various ways including research projects documenting cultural values and resources. It is important that the Natural Resource, Subsistence and Interpretive programs also be part of this collaborative effort. This can only enhance the programs and continue to build upon the current relationship between the NPS and Dena'ina communities. Such efforts can include internships and could in time lead to local people developing and delivering interpretive programs related to Dena'ina culture, lands, and resources.

Dena'ina Language Revitalization and Preservation—The Dena'ina language is endangered, with less than 10 fluent speakers in Nondalton, for example. Yet as interviewees attest, the language is the foundation of Dena'ina culture, as is true of cultures around the world. Interviewees agree that LACL's cultural documentation efforts need to include collaboration with tribes and other entities working toward language revitalization. Collaboration that provides Dena'ina people with full access to linguistic materials housed at the park directly supports this effort. So too, interviewees strongly encourage the integration of linguistic components into all facets of cultural and historical documentation of LACL, consistently providing Dena'ina terms for places, resources, and other things managed by the NPS. There are also potentials for NPS financial and logistical support for language programs that might benefit the Dena'ina community while also supporting the NPS mission to effectively manage and interpret the lands and resources of the Lake Clark region.

Cumulatively, tribal members agree that this is a pivotal time, in which the fate of the lands, resources, and cultural traditions are being determined in ways sure to have permanent effects. Interviewees note that these things exist today because ancestors showed diligence, wisdom, and restraint in each of the linked domains:

“It's still connected. When it comes to culture and traditional and spiritual uses, they're connected, compact and contiguous...Dena'ina... they took care of it. That's why [we have] what we have today” (RD).

Through concerted effort, the land, resources, and culture will retain their integrity, each sustaining the other. Through concerted effort, all stakeholders might pass these things on to future generations, unimpaired, ensuring that Dena'ina people will be sustained—culturally, materially, spiritually, socially—into the far distant future.

Sources

Interviewees Mentioned In the Text

Alexie, Gary	Delkettie, Nancy	Silas, Fawn
Balluta, Alex	Delkettie, Rick	Tracy, June
Balluta, Andrew	Evanoff, Gladys	Trefon, Ada
Balluta, Clemont	Evanoff, Karen	Trefon, Baretta
Balluta, Nikolai	Hedlund, Nels	Trefon, Jr., Bill
Balluta, Olga	Hedlund, Rose	Trefon, Clara
Carltikoff, Darren	Hobson, Butch (Steve Hobson, Jr.)	Trefon, Melvin
Carltikoff, Nicholai	Hobson, Mary	Trefon, Tyrone
Cusma, Agnes	Hobson, Jack	Wassallie, Sr., Albert
Delkettie, Agnes	Hobson, Pauline	Wilson, Katie
Delkettie, Clarence Adam	Kakaruk, Randy	Zackar, Paul
Delkettie, Mary	Rickteroff, Teresa	

Interviewee Codes

AB.....	Balluta, Andrew	KE.....	Evanoff, Karen
AC.....	Cusma, Agnes	KW.....	Wilson, Katie
AD.....	Delkettie, Agnes	LH.....	Hill, Larry
AN.....	Anonymous	MD.....	Delkettie, Mary
AT.....	Trefon, Ada	MH.....	Hobson, Mary
AXB.....	Balluta, Alex	MT.....	Trefon, Melvin
AW.....	Wassallie, Sr., Albert	NB.....	Balluta, Nikolai
BH.....	Hobson, Butch (Steve Hobson, Jr.)	NC.....	Carltikoff, Nicholai
BT.....	Trefon, Baretta	ND.....	Delkettie, Nancy
BTJ.....	Trefon, Jr., Bill	NH.....	Hedlund, Nels
CB.....	Balluta, Clemont	OB.....	Balluta, Olga
CD.....	Delkettie, Clarence Adam	PH.....	Hobson, Pauline
CT.....	Trefon, Clara	PZ.....	Zackar, Paul
DC.....	Carltikoff, Darren	RD.....	Delkettie, Rick
FS.....	Silas, Fawn	RH.....	Hedlund, Rose
GA.....	Alexie, Gary	RK.....	Kakaruk, Randy
GE.....	Evanoff, Gladys	TR.....	Rickteroff, Teresa
JH.....	Hobson, Jack	TT.....	Trefon, Tyrone
JT.....	Tracy, June		

Bibliography

Alexie, Emma

2010. Life with the Seasons. In *Dena’ina Elnena: A Celebration of Life*. Pp 59-66. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Alexie, Nick

2010. *K’uhda’l Yes Vanq’ashli*: Moose Skin Boat. In *Dena’ina Elnena: A Celebration of Life*. Pp 81. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Balluta, Andrew and J.M. Kari

2008. *Shtutda’ina Da’a Shel Qudel, My Forefathers are Still Walking with Me: Verbal Essay on Qizhjuh and Tsaynen Dena’ina Traditions*. Anchorage, AK: U.S. Department of the Interior, National Park Service, Lake Clark National Park & Preserve.

Balluta, Andrew

2010. *Tanilen Vetnu Tustes*: Creek Flows into River Pass. In *Dena’ina Elnena: A Celebration of Life*. Pp 49. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Balluta, Nicholi

2010. *Eseni Dghitnu*: Cottonwood Extends; Respecting Trapping & Hunting Grounds. In *Dena’ina Elnena: A Celebration of Life*. Pp 41. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park & Preserve.

Behnke, Steven R.

1978. Resource use and subsistence in the vicinity of proposed Lake Clark National Park, Alaska, and addition to Katmai National Monument. Occasional Paper no. 15. Fairbanks, AK: University of Alaska, Anthropology and Historic Preservation, Cooperative Park Studies Unit.

Bobby, Pete

2010. Material Places on Stony River. In *Dena’ina Elnena: A Celebration of Life*. Pp 52. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

2010a. Summer Boat Travel on the Upper Stony River. In *Dena’ina Elnena: A Celebration of Life*. Pp 67-69. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

2010b. Hunting Black Bears with Ał in the Fall Time. In *Dena’ina Elnena: A Celebration of Life*. Pp 179. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Bobby, Vonga

2010. *Kenq’ena Qayeh*: Dentalia’s Home. In *Dena’ina Elnena: A Celebration of Life*. Pp 57. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Boraas, Alan

2013. “What is Good, What is No Good”: The Traditional Dena’ina Worldview. In *Dena’inaq’ Huch’ulyeshi: The Dena’ina Way of Living*. Pp 103-120. Suzi Jones, J.A. Fall, A. Leggett, eds. Fairbanks, AK: University of Alaska Press.

Brabets, Timothy P.

2002. Water quality of the Tliikakila River and five major tributaries to Lake Clark, Lake Clark National Park and Preserve, Alaska, 1999-2001. U.S. Geological Survey.

Branson, John B., ed.

1997. *Lake Clark-Iliamna, Alaska, 1921: The Travel Diary of Colonel A.J. MacNab, with related documents*. 2nd ed. Anchorage, AK: Alaska Natural History Association.

Branson, John B.

2014. *A 20th-Century Portrait of Lake Clark, Alaska, 1900-2000*. Anchorage, AK: US Dept. of the Interior, National Park Service, Lake Clark National Park Preserve, Alaska Association for Historic Preservation.

2012. *The Life and Times of John W. Clark of Nushgak, Alaska, 1846-1896*. Anchorage, AK: US Dept. of the Interior, National Park Service, Lake Clark National Park Preserve.

2010. Dena’ina Trails: A Personal View. In *Dena’ina Elnena: A Celebration of Life*. Pp 49. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Brown, Thomas C. and E.S. Burch, Jr.

1992. Estimating the economic value of subsistence harvest of wildlife in Alaska. Pp 203-254. In *Valuing Wildlife Resources in Alaska*. George L. Peterson, C.S. Swanson, D.W. McCollum, and M.H. Thomas, eds. San Francisco, CA: Westview Press.

Carltikoff, Nicholai and O. Balluta, O. Delkettie

2010. How Places were Named. In *Dena’ina Elnena: A Celebration of Life*. Pp 15. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Cook, Joseph A. and S.D. MacDonald

2004. Mammal inventory of Alaska’s national parks and preserves: Lake Clark National Park and Preserve, annual report 2003. U.S. Department of the Interior, National Park Service, Southwest Alaska Network Inventory & Monitoring Program

Coray, John, C. Coray, Kijik Corporation, Nondalton Tribal Council

2007. *Dnaghelt’ana qut’ana k’eli ahdelyax: They sing the songs of many peoples*. Anchorage, AK: Kijik Corporation.

DePew, Alan D. and D.R. Thompson

1999. 1999 archaeological survey for the Village of Nondalton, Alaska Water and Sewer Project. Anchorage, AK: Walking Dog Archaeology.

Deur, Douglas

2008. ATV Use by Residents of Igiugig and Kokhanok, Alaska in Katmai National Park and Preserve: A Thematic Overview. Seattle, WA: Pacific Northwest Cooperative Ecosystem Studies Unit, University of Washington, for Katmai National Park and Preserve, King Salmon, AK.

Deur, Douglas and Karen Evanoff

2013. An Evaluation of the Effects of Tourism on Traditional Activities: An Ethnographic Study for the Alagnak Wild River Area. Anchorage, AK: USDI National Park Service, Alaska Region.

Dick, Helen

2010. Preparation and Traveling. In *Dena’ina Elnena: A Celebration of Life*. Pp 188. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Dissler, Kathleen M.

1980. An Ethnohistory of the Kvichak River Area and Lakes of the Upper Alaska Peninsula. Boulder, CO: Western Interstate Commission for Higher Education.

Duffield, John and David Patterson

2007. Economics of Wild Salmon Watersheds: Bristol Bay, Alaska. Missoula, MT: The University of Montana for Trout Unlimited, Alaska.

Ellana, Linda J., and A. Balluta

1992. *Nuvendaltin Quht’ana, the People of Nondalton*. Washington, DC: Smithsonian Institution Press.

Evan, Alexie

2010. Hunting Sheep and Traveling Between the Swift River and the Stony River. In *Dena’ina Elnena: A Celebration of Life*. Pp 174. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Evan, Antone, J. Tenenbaum, M.J. McGary, Alaska Native Language Center

1984. *Dena’ina Sukdu’a: Traditional Stories of the Tanaina Athabaskans*. Fairbanks, AK: University of Alaska.

2010. *Nughilqutnu Nudgelient*: At the Falls on Nughilqutnu. In *Dena’ina Elnena: A Celebration of Life*. Pp 22. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

2010a. Traditional Backpacks. In *Dena’ina Elnena: A Celebration of Life*. Pp 55. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

2010b. Caribou Fences. In *Dena’ina Elnena: A Celebration of Life*. Pp 171. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Evanoff, Karen and M. Ravenmoon

2013. *Ye’uh Qach’dalts’iyi: “What We Live On from the Outdoors.”* In *Dena’inaq’ Huch’ulyeshi: The Dena’ina Way of Living*. Pp 121-128. Suzi Jones, J.A. Fall, A. Leggett, eds. Fairbanks, AK: University of Alaska Press.

Fagan, Brian

2008. Where We Found a Whale: A History of Lake Clark National Park and Preserve. Anchorage, AK: U.S. Department of the Interior, National Park Service, Lake Clark National Park & Preserve.

Fall, James A.

2013. Introduction to Dena’ina Culture and History. In *Dena’inaq’ Huch’ulyeshi: The Dena’ina Way of Living*. Pp 1-48. Suzi Jones, J.A. Fall, A. Leggett, eds. Fairbanks, AK: University of Alaska Press.

2013a. An Overview of Research on Dena’ina Culture, History and Language. In *Dena’inaq’ Huch’ulyeshi: The Dena’ina Way of Living*. Pp 53-62. Suzi Jones, J.A. Fall, A. Leggett, eds. Fairbanks, AK: University of Alaska Press.

Fall, James A., M.B. Chythlook, J.C. Schichnes, and J.M. Morris

1996. An overview of the harvest and use of freshwater fish by the communities of the Bristol Bay Region, Southwest Alaska. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 166.

Fall, James A., M.B. Chythlook, T.M. Krieg, and G. Jennings

2001. Overview of the subsistence sockeye salmon fishery of the Kvichak River watershed, Bristol Bay, Southwest Alaska. Alaska Department of Fish and Game Division of Subsistence.

Fall, James A., D. L. Holen, B. Davis, T.M. Krieg, and D. Koster

2006. Subsistence harvests and uses of wild resources in Iliamna, Newhalen, Nondalton, Pedro Bay, and Port Alsworth, Alaska, 2004. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 302.

Fall, James A., T.M. Krieg, and D.L. Holen

2009. An Overview of the subsistence fisheries of the Bristol Bay Management Area. Alaska Department of Fish and Game Division of Subsistence, Special Publication No. 2009-007.

Fall, James A., D.L. Holen, T.M. Krieg, R. La Vine, K. Stickman, M. Ravenmoon, J. Hay, and J. Stariwat

2010. The Kvichak watershed subsistence salmon fishery: an ethnographic study. Alaska

Department of Fish and Game Division of Subsistence, Technical Paper No. 352.

Gaul, Karen K.

2007. *Nanutset ch’u Q’udi Gu, before our Time and Now: An Ethnohistory of Lake Clark National Park and Preserve*. Anchorage, AK: U.S. Department of the Interior, National Park Service, Lake Clark National Park & Preserve.

Hensley, Donita

2010. Potlatch and Relationships between Communities. In *Dena’ina Elnena: A Celebration of Life*. Pp 80-84. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Hill, Lary

2010. On the Telaquana Trail. In *Dena’ina Elnena: A Celebration of Life*. Pp 46-47. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

2010a. The Hills on the Telaquana Trail. In *Dena’ina Elnena: A Celebration of Life*. Pp 202-203. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Himes-Cornell A. and K. Hoelting, C. Macquire, L. Munger-Little, J. Lee, J. Fisk, R. Felthoven, C. Geller, P. Little

2013. Community profiles for North Pacific Fisheries—Alaska, Volume 8. NOAA Technical Memorandum NMFS-AFSC-259. US Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Alaska Fisheries Science Center.

Hoaglund, Alison K.

1982. A survey of historical architectural resources in Lake Clark National Park and Preserve. Anchorage, AK: U.S. Department of the Interior, National Park Service, Lake Clark National Park & Preserve.

Hobson, Pauline

2010. Values and Knowing the Land. In *Dena’ina Elnena: A Celebration of Life*. Pp 29-31. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Holen, Davin L.

2003. Local observations and traditional ecological knowledge in the changing landscape of the Lake Clark-Iliamna Lake region of Alaska, 2002, draft report. Alaska Department of Fish and Game, Division of Subsistence.

2008. Adaptation and resilience of salmon fishing economies in Southwest Alaska. Division of Subsistence, Alaska Department of Fish & Game.

2009. A resilient subsistence salmon fishery in the Southwest Alaska. A case study of fish camps in Nondalton. *Journal of Northern Studies*, No. 2. Pp 101-116. Umea University and The Royal Skyttean Society.

Holen, Davin L. and T. Lemons

2010. Subsistence harvests and uses of wild resources in Lime Village, Alaska, 2007. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 355.

Holen, Davin L., T.M. Krieg, R. Walker, and H. Nicholson

2005. Harvests and uses of caribou, moose, bears, and Dall sheep by communities of Game Management Units 9B and 17, Western Bristol Bay, Alaska 2001–2002. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 283.

Jacko, Gilly

2010. *Łih Vena*: White Fish Lake. In *Dena’ina Elnena: A Celebration of Life*. Pp 52. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Jacobs, Jane

1995. *A Schoolteacher in Old Alaska: The Story of Hannah Breece*. New York, NY: Vintage Books.

Jacobsen, Brandy K.

2004. Mammal inventory of BLM lands: vicinity of Iliamna Lake, Kvichak River, and Nushagak River valleys, annual report 2003. Fairbanks, AK: University of Alaska Museum, Fairbanks.

Kari, James

1996. Names as Signs: the Distribution of ‘Stream’ and ‘Mountain’ in Alaskan Athabaskan Languages. In *Athabaskan Language Studies: Essays in Honor of Robert W. Young*. Pp. 443-476. E. Jelinek, Midgett, S., Rice, K., and Saxon, L. eds. Albuquerque, NM: University of New Mexico Press.

Kari, James M. and P.R. Kari

1982. *Dena’ina Elnena, Tanaina Country*. Fairbanks, AK: University of Alaska, Alaska Native Language Center.

Kari, Priscilla R.

1983. Land use and economy of Lime Village. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 80.

2003. *Tanaina Plantlore, Dena’ina K’et’una: An Ethnobotany of the Dena’ina Indians of Southcentral Alaska*. 2nd ed. revised. Anchorage, AK: Alaska Natural History Association.

Kenner, Philippa C.

2002. From *Neqa* to *Tepa*: A database with traditional knowledge about the fish of Bristol Bay. U.S. Fish and Wildlife Service Office of Subsistence Management, Fisheries Resource Monitoring Program, Final Report (Study No. FIS00-012).

Koktelash, Ruth

2010. How to Snare a Ground Squirrel. In *Dena’ina Elnena: A Celebration of Life*. Pp 177. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Krieg, Theodore M., M.B. Chythlook, P. Coiley-Kenner, D.L. Holen, K. Kamletz, and H. Nicholson

2005. Freshwater fish harvest and use in communities of the Kvichak watershed, 2003. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 297.

Krieg, Theodore M., J.A. Fall, M.B. Chythlook, R. La Vine, and D. Koster

2007. Sharing, bartering, and cash trade of subsistence resources in the Bristol Bay Area, Southwest Alaska. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 326.

Kolyaha, Zenia

2010. *Tusnuk’elyasht*: Iliamna Portage. In *Dena’ina Elnena: A Celebration of Life*. Pp 70. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Lynch, Alice J.

1982. *Qizhjuh*: the historic Tanaina village of Kijik and the Kijik Archaeological District. Occasional Paper no. 32. Fairbanks, AK: University of Alaska, Anthropology and Historic Preservation, Cooperative Park Studies Unit.

MacDonald, Margaret Read

2005. *Earth Care: World Folktales to Talk About*. Little Rock, AR: August House.

Martin, G.C. and F.J. Katz

1910. *Outline of the Geology and Mineral Resources of the Iliamna and Clark Lake Region* Bulletin 442. Washington, DC: U.S. Geological Survey.

McClelland, Linda F.

1997. How to complete the National Register Form. National Register Bulletin 16a. Washington, D.C.: National Park Service.

Morris, Judith M.

1986. Subsistence production and exchange in the Iliamna Lake Region, Southwest Alaska, 1982-1983. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 136.

Nondalton Tribal Council (NTC)

2006. Nondalton long-range ecological plan. Nondalton, AK: Nondalton Tribal Council.

2014. *Native Village of Nondalton Integrated Resources Management Plan for the Chilitna River—Sixmile Lake Watersheds*. Nondalton, AK: Nondalton Tribal Council.

Osgood, Cornelius

1933. Tanaina Culture. *American Anthropologist* 35(4):695-717.

1966. The Ethnography of the Tanaina. *Yale University Publications in Anthropology* 16. Reprint of the 1937 edition. New York, NY: Burns and MacEachern, Ltd.

Parametrix

2010. Nondalton integrated resource management plan progress report and interim data study. Albuquerque, NM: Parametrix.

Parker, Patricia L. and King, Thomas F.

1998. Guidelines for Evaluating and Documenting Traditional Cultural Properties. National Register Bulletin 38. Washington, D.C.: USDI National Park Service.

Proenneke, Richard L., J. Branson, and Lake Clark National Park Preserve

2005. *More Readings from One Man’s Wilderness: The Journals of Richard L. Proenneke, 1974-1980*. Washington, D.C.: Lake Clark National Park and Preserve.

R2 Resource Consultants, CH2M Hill, HDR Alaska, Inc, Buell and Associates, and Bailey Environmental

2012. Fish and Aquatic Invertebrates, Bristol Bay Drainages, the Biological Environment. In *Pebble Project Environmental Baseline Document*. Chapter 15. Anchorage, AK: Pebble Limited Partnership.

Ravenmoon, Michelle

2010. Dena’ina Language and Identity. In *Dena’ina Elnena: A Celebration of Life*. Pp 25. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Reger, Douglas

2013. Dena’ina Archaeology. In *Dena’inaq’ Huch’ulyeshi: The Dena’ina Way of Living*. Pp 63-72. Suzi Jones, J.A. Fall, A. Leggett, eds. Fairbanks, AK: University of Alaska Press.

Rooth, Anna Birgitta

1971. *The Alaska expedition 1966: Myths, customs and beliefs among the Athabaskan Indians and the Eskimos of northern Alaska*. Lund: Gleerup.

Russell, Richard

1980. A fisheries inventory of waters in the Lake Clark National Monument area. Anchorage, AK: Alaska Department of Fish and Game Division of Sport Fish.

Shaw, Jennifer Lyn

2013. Navigating at a crossroads: The role of subsistence culture in the subjective wellbeing of Dena’ina Athabaskan youths in Alaska. Ph.D. dissertation. Department of Anthropology, Case Western Reserve University, Cleveland, OH.

Smith, George S. and Shield, H.M.

1977. Archaeological survey of selected portions of the proposed Lake Clark National Park: Lake Clark, Lake Telaquana, Turquoise Lake, Twin Lakes, Fishtrap Lake, Lachabuna Lake, and Snipe Lake. Occasional Paper no. 7. Fairbanks, AK: University of Alaska, Anthropology and Historic Preservation, Cooperative Park Studies Unit.

Stephen R. Braund & Associates

2009. Pebble subsistence uses and traditional knowledge study, Nondalton, Alaska, draft report. Pebble Project Environmental Baseline Document. Anchorage, AK: Pebble Limited Partnership.

2012. Cultural Resources, Bristol Bay Drainages, the Human Environment. In *Pebble Project Environmental Baseline Document*. Chapter 22. Anchorage, AK: Pebble Limited Partnership.

2012. Subsistence Uses and Traditional Knowledge, Bristol Bay Drainages, the Human Environment. In *Pebble Project Environmental Baseline Document*. Chapter 23. Anchorage, AK: Pebble Limited Partnership.

Stephen R. Braund & Associates and Alaska Department of Fish & Game Division of Subsistence

2012a. Cultural resources. Presentation at webinar for Pebble Project Environmental Baseline Studies, January 31-February 3, 2012, Anchorage, AK.

2012b. Subsistence and traditional knowledge studies. Presentation at webinar for Pebble Project Environmental Baseline Studies, January 31-February 3, 2012, Anchorage, AK.

Stickman, Karen, A. Balluta, M. McBurney, D. Young, and K. Gaul

2003. *Kezghlegh*: Nondalton traditional ecological knowledge of freshwater fish. U.S. Fish and Wildlife Service Office of Subsistence Management, Fisheries Resource Monitoring Program, Final Report (Study No. 01-075).

Tenebaum, Joan M

1976. *Dena’ina Sukdu’a: Tanaina Stories*, vols. 1-4. Fairbanks: AK: Alaska Native Language Center.

Thornton, Thomas F., Douglas Deur, and Herman Kitka Sr.

2015. Cultivation of Salmon and other Marine Resources on the Northwest Coast of North America. *Human Ecology* 43(2):189-99.

Townsend, Joan B.

1965. Ethnohistory and Culture Change of the Iliamna Tanaina. Ph.D. dissertation. Department of Anthropology, University of California, Los Angeles. Ann Arbor, MI: University Microfilms.

1970. The Tanaina of Southwestern Alaska: An Historical Synopsis. In *Western Canadian Journal of Anthropology*, Special Issue: *Athabaskan Studies* 2(1):2-16. Regna Darnell, ed.

1970a. Tanaina Ethnohistory: An Example of a Method for the Study of Culture Change. In *Studies in Anthropology* 7: Ethnohistory in Southwestern Alaska and the Southern Yukon: Method and Content. Pp 71-102. Margaret Lantis, ed. Lexington: University Press of Kentucky.

1970b. Tanaina Athapaskan Ethnohistory & Socioeconomic Change. Proceedings of the 8th International Congress of Anthropological & Ethnological Sciences, Vol. 2: Ethnology. Pp 186-188. Tokyo and Kyoto, 1968.

1970c. Tanaina Archaeology in the Iliamna Lake Region, Alaska. *Bulletin of the Canadian Archaeological Society* 2:34-41.

1973. Ethnoarchaeology in Nineteenth Century Southern and Western Alaska: An Interpretive Model. *Ethnohistory* 20(4):393-412.

1981. Tanaina. In *Handbook of North American Indians*, Vol. 6: Subarctic. Pp 623-640. June Helm, ed. Washington, DC: Smithsonian Institution.

Townsend, Joan B. and Sam-Joe Townsend

1961. Archaeological Investigations at Pedro Bay, Alaska. *Anthropological Papers of the University of Alaska* 10(1):25-58.

Trefon, Alex Sr.

2010a. Traditional Leadership. In *Dena’ina Elnena: A Celebration of Life*. Pp 24. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

2010b. Moose and Caribou First Coming to the Area. In *Dena’ina Elnena: A Celebration of Life*. Pp 201. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Trefon, Gabriel

2010. *Hutal Hnidenghi'iy*: Flat Rock That is Embedded. In *Dena'ina Elnena: A Celebration of Life*. Pp 20-21. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

University of Alaska, Fairbanks

1999. Lake Clark National Park Project Jukebox, web page of oral histories. Fairbanks: Project Jukebox, Oral History Program, University of Alaska.

Unrau, H.D.

1994. Lake Clark National Park and Preserve, Alaska: historic resource study. U.S. Department of the Interior, National Park Service, Lake Clark National Park & Preserve.

VanStone, James W. and J.B. Townsend

1970. Kijik: An Historic Tanaina Indian Settlement. *Fieldiana: Anthropology* 59. Chicago, IL: Field Museum of Natural History.

Vaudrin, Bill

1969. *Tanaina Tales from Alaska*. 1st ed. Civilization of the American Indian series, vol. 96. Norman, OK: University of Oklahoma Press.

Wassallie, Albert

1980. *Nuvendaltun Ht'ana Sukdu'a: Nondalton People's Stories*. Anchorage, AK: National Bilingual Materials Development Center.

2010. *Yusdi Ghuyiq'*: Long Point Dena'ina and Yupik Gather at Yusdi Ghuyiq. In *Dena'ina Elnena: A Celebration of Life*. Pp 16-17. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

2010a. *Tus T'eghla Tusghilk'et*: Pass in Which Sedges Extend Through. In *Dena'ina Elnena: A Celebration of Life*. Pp 40. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

2010b. *Chickalushen Tustes*. In *Dena'ina Elnena: A Celebration of Life*. Pp 48. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

2010c. *Huten Vena Tustes*: A Trail to Paint. In *Dena'ina Elnena: A Celebration of Life*. Pp 53. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

2010d. Bear Signs and Tracking Bears in the Spring Time. In *Dena'ina Elnena: A Celebration of Life*. Pp 75. Karen E. Evanoff, ed. Anchorage, AK: Lake Clark National Park and Preserve.

Wentworth, Cynthia

2007. Subsistence migratory bird harvest survey, Bristol Bay: 2001-2005, with 1995-2005 species tables. Anchorage, AK: U.S. Fish and Wildlife Service, in cooperation with Togiak National Wildlife Refuge and Bristol Bay Native Association.

Wolfe, Robert J. and Robert J. Walker

1987. Subsistence economies in Alaska: Productivity, geography, and development impacts. *Arctic Anthropology* 24(2):56-81.

Workman, Karen W.

1996. An Archaeological Definition of Dena'ina. In *Adventures through Time: Readings in the Anthropology of Cook Inlet, Alaska, Proceedings of a Symposium*. Pp 209-220. Nancy Y. Davis and William E. Davis, eds. Anchorage, AK: The Cook Inlet Historical Society.

Worthington, Anne, compiler

1996. A Guide to Dena'ina House Depressions at Kijik National Historic Landmark. Anchorage, AK: U.S. Department of the Interior, National Park Service, Alaska System Support Office.

Znamenski, Andrei A.

2003. *Through Orthodox Eyes: Russian Missionary Narratives of Travels to the Denaina and Ahtna 1850s-1930s*. Fairbanks, AK: University of Alaska Press.

Notes

- 1 Specifically, Section 201(7).
- 2 Specifically, on perimeters delineated in formal consultations and subsequent informal communications with the Nondalton Tribal Council, Kijik Corporation, and the National Park Service. These entities noted that traditional uses of the area are both geographically broad and integrally connected.
- 3 The NPS and the Alaska Native communities of the region have only limited data regarding the identity and location of resources potentially affected by land and resource management in this core part of the Dena'ina homeland. Places of cultural significance tend to be poorly documented, a fact complicated by the geographically vast and sometimes diffuse patterns of traditional Dena'ina resource use.
- 4 Under Section 106 of the National Historic Preservation Act and a variety of other federal laws and policies.
- 5 This documentation is expected to be relevant to future compliance, as it illuminates places that might be eligible for National Register of Historic Places status by virtue of the presence of archaeological resources. At the request of both NTC and NPS representatives, the documentation effort reflected in this report has sought to illuminate broader cultural practices and values. Recording these accurately is important, not only to the preservation of cultural knowledge but to the nuanced consideration of that knowledge within all aspects of NPS management and interpretation of the Lake Clark region.

Through a Cooperative Ecosystem Studies Unit (CESU) task agreement, LACL was able to draw on the research experience of Dr. Douglas Deur, a Portland State University (PSU) research professor (formerly with the Pacific Northwest CESU office) whose expertise includes the documentation of culturally significant lands and resources in parks and other protected areas. All research activities were coordinated by LACL Cultural Anthropologist, Karen Evanoff, a Dena'ina cultural specialist who hails from Nondalton. Together, Deur and Evanoff directed an ad hoc research team consisting of NPS staff and PSU research assistants. Jamie Hebert, a research assistant at Portland State University contributed significantly to the research and writing of this document, along with Deur and Evanoff. Dr. Tricia Gates Brown served as the editor of the original report, as well as this derivative publication. Reflecting the collaborative genesis of this project, the study area included all NPS lands within the larger Chulitna-Sixmile study area, but also—with the involvement of Kijik Corporation—that portion of Chulitna River just upstream from the park where Kijik Corporation owns extensive riparian lands (including Kijik Subsistence Land Settlement Trust lands) and a number of Nondalton families hold Native allotments.

The research team started their investigations with a reconnaissance-level cultural landscape inventory, compiling existing information regarding cultural resources and culturally significant national resources from park records, tribal office files, and other sources. Prior to this inventory, LACL and Nondalton amassed a considerable corpus of transcripts, recordings, field notes, and publications based on Evanoff's past oral history interviews in Nondalton and beyond, all of which were gleaned for pertinent content in the current study. Coauthor,

Jamie Hebert, a research associate in the PSU Department of Anthropology, and an experienced researcher of Alaska subsistence issues, assisted significantly in the effort. Jeanne Schaaf, former cultural resource manager for LACL, provided archaeological data and site information. A diverse range of geographic information system (GIS) and biophysical data sets were assembled to augment these materials. We also sought to locate and incorporate transcripts and audio recordings of original ethnographic interviews with Dena'ina cultural specialists.

Following a review of data gaps in preexisting sources, the research team carried out original ethnographic interviews, as well as field visits to sites within the study area. We interviewed all individuals in Nondalton who are recognized by the community as having specialized knowledge of the study area and willing to speak on record. These interviews were qualitative, seeking not only to identify specific lands and resources of cultural significance in the study area, but to assess the nature and depth of that significance. Interview questions were linked directly to criteria established in National Register Bulletin 38 and other guidelines developed by the National Register program for establishing eligibility based on TCP criteria. In addition, parallel with the current project, Evanoff oversaw the development of the Nondalton Integrated Resource Management Plan (IRMP – Nondalton Tribal Council 2014). Interviews for the two projects were conducted concurrently, and the IRMP documentation is manifested in many ways within this document. Initials are used throughout to identify individuals making particular statements. The names and initials of all quoted individuals are at the end of this document in the "Sources" section. Where transcripts from earlier studies are utilized, we also include the date of the prior study beside the initials of the interviewee.

The contents of these interviews were reviewed for recurring themes, and the themes significantly inform the structure of the report that follows. We consistently seek to let the knowledge-holders speak for themselves, including long quotations that identify key points or are representative of prevailing ideas and sentiments. The inclusion of cultural knowledge of modern Dena'ina knowledge-holders has allowed the research team to fill large gaps in the existing written record, especially relating to the cultural significance of lands and resources. Moreover, by incorporating the perspective of contemporary interviewees, the research reflects federal guidance in myriad ways: contemporary people must have a demonstrable and enduring "integrity of relationship" with traditional cultural properties if those places are to be eligible for national register listing, while NPS-28 (Cultural Resource Management Guideline) suggests that a traditional-use study, as a standard NPS baseline report, will ordinarily draw significantly from original ethnographic interviews in documenting cultural information regarding NPS-managed lands and resources.

Elders and NPS staff alike agreed that it was important to carry out some part of the research "on the land," and the research team happily complied with this request. With elders who know the Chulitna River well, the research team floated the length of the Chulitna River in inflatable rafts, allowing for detailed field interviews at a pace that facilitated careful field checking of site locations and attributes. The research team carried out similar field visits around the Sixmile Lake, Newhalen River, and southern end of Lake Clark, recording previously undocumented cultural

sites and gathering additional cultural and historical information regarding sites already known. The research team visited these cultural and historical sites largely by motorboat, carrying out ethnographic interviews concurrently. Through this process we have recorded ethnographic information regarding burial sites, past and present traditional resource use areas, settlements, and places that remain prominent in Dena'ina oral tradition, mapping the sites with a high level of precision. Many of these places had not been previously recorded; some that were recorded previously had not been mapped adequately. The research team recorded Global Positioning System (GPS) points for any cultural sites identified by elders in the course of fieldwork, with the team mapping these sites to produce GIS layers for various applications. NPS Alaska regional office Archaeologist Rhea Hood provided GPS and GIS support during certain fieldwork phases, in order to map and analyze geographical patterns in the distribution of cultural sites documented in the course of the work. These maps and datasets were updated on the basis of ongoing fieldwork and organized by NPS Archaeologist Dael Devenport into maps featured in this report – unless otherwise indicated, maps in this document are the products of her work.

6 The research team now collaborates on publications, derived from this report, to disseminate their research findings. Among them is an overview of interior Dena'ina culturally modified trees and trails that will guide future researchers and agency staff in identifying the physical traces of Dena'ina occupation and land use. While the national register implications are still in discussion, it is clear that many of these resources may independently prove to be national register-eligible. Moreover, it may be possible to combine many of these places under the “umbrella” designation of a multiple property district—a broadly defined national register property that can contain multiple properties linked thematically, such as archaeological sites, historical sites, and places meeting traditional cultural properties criteria.

7 Brabets 2013.

8 Brabets 2013.

9 Ellanna and Balluta 1992; Russell 1980; Townsend 1970.

10 Ellanna and Balluta 1989.

11 As summarized by Morris,
 “Lake Clark itself lies in a major fault valley, thus creating a major pass through the Alaska Range. The shoreline and area east on Lake Iliamna are steeply graded, with sharp peaks and intermittent valleys due to the presence of the Aleutian Range” (Morris 1986:9-10).

12 Listed from north to south these volcanoes are known in Dena'ina as “K'idazq'eni 'the one that is burning inside' (Mt. Spurr), Bentuggezh K'enułgheli 'the one with a notched forehead' (Mt. Redoubt), Ch'naqał'in possibly 'it stands above (Iliamna Volcano), and Chu Nula possibly 'beaver's sleep' (Augustine Island)” (Kari and Kari 1982:49-50).

13 Ellanna and Balluta 1989.

14 Behnke 1982; Morris 1986.

15 Summarizing the findings of Center for Global Change and Arctic System Research, Stickman et al. (2003:30) note, “Since the 1960s, the average annual temperature in Alaska has increased about 5° F. (3° C.). Evidence of this warming trend has been observed in glacial retreat, thinning of permafrost, reduction in sea surface ice and other changes in the environment. It has also been manifested in warmer winters with shorter snow seasons and reduced periods of river and lake ice cover.”

16 Ellanna and Balluta 1989; Stickman et al. 2003.

17 Behnke 1982; Morris 1986.

18 As elders speaking with Holen et al. observe, the conflict between humans and bears “can be especially tense when there is minimal escapement of salmon, or a poor berry crop because brown bears and humans both are dependent on the same population of caribou and moose” (Holen et al. 2005:78). A Nondalton hunter summarizes his observations:
 [The] “harvesting of brown bear occurs at fish camps when brown bears get into smoke houses or they come too close to the village. As a hunter in Nondalton says, ‘there are more bears,’ and laughs, and ‘They are too lazy to hunt, living off people’s fish camps.’ Another Nondalton hunter relates, ‘you’re more likely to run into a bear now days than 10-15 years ago. The population of bears came up quite a bit, the last 3-4 summers. They must have shot over 20 bears just in this area down at fish camp. We never used to have that problem before” (Holen et al. 2005:79).

19 Far downstream, marine resources in the area include harbor seals in Lake Iliamna, Beluga whales in the Kvichak River, and sea otters in the Pacific waters (Morris 1996; Brabets 2013).

20 Fall et al. 2006; VanStone and Townsend 1970; Kari 1988; Ellanna and Balluta 1989.

21 Branson 2012:181.

22 In 1891, members of the Leslie Expedition, headed by John C. Clark, traveled up the Nushagak River to census the upriver villages. According to their journals, as they passed into the south fork of the Chulitna River, the group crossed from Yup'ik into Dena'ina territory. Marking the transition was a clear linguistic change, as well as the unfamiliarity of the land to the Yup'ik guide accompanying the expedition party:
 “The travelers were ready to leave the Swan River and Nushagak drainage to mush over low rolling hills and countless frozen ponds as they went east into the narrow south fork of the Chulitna River which ran into the large lake in the Iliamna-Kvichak River drainage. Chulitna is a Dena'ina word that means ‘flows out river.’ The change of language from Yup'ik to Dena'ina for the geographical places the party encountered signified they were passing through an area of cultural and linguistic interface. An invisible cultural boundary line had been crossed. The Nushagak Yup'ik men did not know the Dena'ina lands as well as their own” (Branson 2012:181).

The delineation between Dena'ina and Yup'ik lands has been described as having its northern territorial boundary along the Mosquito River, which joins the Mulchatna River (Kari and Kari 1982). In the south, the Iliamna region acted as an interface

between the groups for purposes of trade both material and cultural (Townsend 1970; Behnke 1982; Kari and Kari 1982). Despite years of extensive contact with the Yup'ik, the inland Dena'ina sustained a very distinct social and cultural identity (Behnke 1982).

More recently, interaction between the Dena'ina and the surrounding Yup'ik people has been characterized as largely cooperative. In 1910, Hannah Breece, a schoolteacher employed by the Department of the Interior to teach at schools in Iliamna and Nondalton, described the relationship between the Dena'ina at Old Iliamna and a small community of Yup'ik living in the neighboring Newhalen area as amicable (Jacobs 1995; Fall et al. 2006). Nels Hedlund, while trapping beaver near the village of Newhalen, made similar observations regarding the relationship of the Dena'ina and Yup'ik people, being positive and respectful of territorial boundaries:

“They would go over there to head of Koktuli. That’s a branch of the Mulchatna. ... I heard they’d go up to Dutna Lake and that way. I think most of their traveling was over on Kokhanok side and over in—Koktuli ... Used to trap beavers there mostly. ... They didn’t mix too much. They didn’t go to each other’s—they had their own territory” (NH 1985).

Linguistic evidence indicating the Dena'ina and Yup'ik were involved in operational trade and social relationships for many years can be seen in the mutual familiarity of the two languages among elders of the mid- to late-20th century. Albert Wassallie, for example, reported in 1985 that many Dena'ina elders could then understand residents of the bordering areas of Newhalen and Naknek:

“Some of the people, the old people, they’d been together so long they could understand each other, same with the Dena'ina too. ... Some of the old people here, they used to go down, speak the same as the Newhalen people, same with them too in even in Naknek. ... I know there’s one lady down there right now, she’s so old she can’t get around, she speak our language” (AW 1985).

23 The deep history of occupancy by the Dena'ina people in the Stony and Mulchatna River areas is apparent in the name the inland Dena'ina use to identify their homeland, Htsaynenq' or 'First Land' (Fall 2013), and the name given to the Stony River-Telaquana Lake people, Htsaht'ana or 'the first people' (Kari and Kari 1982). As Fall (2013) explains, “[T]he Dena'ina name for the upper Stony River/Mulchatna River plateau, Htsaynenq', may be translated as 'First Land', thus suggesting that this area is the original homeland of all Dena'ina groups” (Fall 2013:4).

24 Kari and Kari 1982:16.

25 For example, Kari (1985) documented three villages along the Mulchatna River:

“[O]ne at the mouth of Springway Creek (Shehtnu) (referred to in Dena'ina as Shek Kaq'), one at the mouth of the Chilchitna River (Chalchitnu) (known as Chalchi Kaq'), and the last at the mouth of the Chilakadrotna (Tsilak'idghutnu) (known as Niłaghedlen or Tsilak'idghut-nu Hdakaq)” (quoted in Ellanna and Balluta 1992:64).

26 Ellanna and Balluta 1992.

27 Townsend 1970.

28 For example, Alokankok, a village not documented by Kari (1985), was described in a conversation with Nels and Rose Hedlund (RH) as one of the last in the Mulchatna area. It was located near Telaquana Lake:

“That’s all I know what I told you. That was told to me by old Grandma Singha. Her name was Agafia. ... [She was born in] Mulchatna Village” (RH). And, “Alokankok, that’s the last village up there. That’s the last village up in Mulchatna, Alokankok. That’s where... not far across from Telaquana Lake here” (NH).

Further ethnographic work may be necessary to elucidate and document historic villages and traditional places on the landscape. A report is currently being prepared by Matthe O’Leary regarding the distribution and identity of underreported villages in the Mulchatna area.

29 Kari 1985.

30 Kari and Kari 1982.

31 Ellanna and Balluta 1992:23.

32 Braund and Associates 2009:22-34.

33 Townsend 1970.

34 Morris 1986.

35 Fagan 2008; Townsend 1970.

36 Jacobs 1995.

37 As Fall summarizes it, “In the late 1790s, the Tubughna, under the leadership of Quq'ey, destroyed this post [at Tyonek] and killed the Russians.... The Lake Iliamna post too was destroyed by the Dena'ina in the late 1790s” (Fall 2013:36).

38 Fall 2013; Townsend 1970.

39 Ellanna and Balluta 1989(2)9.

40 Hornberger 1986; Ellanna and Balluta 1989(2)9.

41 Morris 1986:21.

42 Ellanna and Balluta 1989[2]9.

43 Morris 1986; Ellanna and Balluta 1989[1]3.

44 Ellanna and Balluta 1989[1]3:69-70.

45 Znamenski 2003.

46 Znamenski 2003:16.

47 Ellanna and Balluta 1989[1]6.

48 At first, missionaries were sent under the behest of the Church, traveling from the Nushagak Mission that encompassed Nushagak, Kuskokwim, and the Stony River basins to the

surrounding villages. Writing in the Church Service Journal in 1905, Nikifor Amkan describes his expedition to Qeghnilen on May 18:

“[W]e proceeded up the Stony River against the rapid current. To keep our boats steady we had to balance them all the time with long poles. On these waters paddles were of no use.” [On May 22, Amkan noticed that the current was getting faster as they neared the village of Qeghnilen.] “Huge rocks were sticking from the river everywhere. It was these rocks that gave the name to the river. In some spots streams of water beating off these rocks got in our baidarkas” (in Znamenski 2003:303).

Later, it was the Dena’ina who petitioned the Church to have priests make the trip despite their remote location. Indeed, the Dena’ina of the Stony River area in the village of Qeghnilen traveled great distances to assist missionaries. Once they arrived, they were welcomed by an elaborate rifle salute:

“Thus, headmen of the Stony River natives traveled hundreds of miles in order to bring priests to Qeghnilen and even developed a certain ritual of welcoming a coming priest who was usually greeted by an American flag that fluttered over the village and by a continual salute from rifles. ... [In 1902] the Stony River people themselves crossed hundreds of miles and descended the Kuskokwim River in order to help bring a missionary to their village” (Znamenksi 2003:44).

49 Hornberger 1986:4-9.

50 Townsend 1970:11.

51 Townsend 1970; Znamenski 2003; Gaul 2007.

52 Behnke 1982. Slavi is widely described in the literatures addressing the Nondalton community. For example, Fall notes:

“Slaviers; community residents and visitors, sing traditional carols while traveling from house to house. They often stop to share food, tea, and coffee. ... That year [in 2008], the Slaviers were from Nondalton and Kokhanok. ... This level of sharing was not limited to Slavi: during late winter 2008 there were a number of community gatherings... that featured subsistence foods. Any occasion, the family said, that brought the community together became an opportunity to share food” (Fall 2010:140).

53 Krieg 2005:73.

54 John Branson pers. comm. 2017.

55 Townsend 1970; Morris 1986.

56 Hornesberger 1986.

57 Behnke 1982.

58 J. Branson, pers. comm., 2017.

59 Hornberger 1986:4-27.

60 Ellanna and Balluta 1992; Townsend 1970a.

61 Fall 2010.

62 e.g., Ellanna and Balluta 1989[2]8.

63 Morris 1986; Fall et al. 2006. As summarized by Ellanna and Balluta, “Even after participation in the Bristol Bay fishery became the norm for Nondalton males, those who went to Bristol Bay returned to summer camps after commercial fishing had ended” (Ellanna and Balluta 1989[2]8:8).

64 Behnke 1982. Unlike the residents of Iliamna and Newhalen who have come to derive up to 90% of their annual income from commercial fishing, “Residents of [Nondalton] village have not invested heavily in gear or boats in comparison with other commercial fishermen in Bristol Bay” (Behnke 1982:15). Nondalton residents have also adapted their summer employment in the fisheries to the cyclic rhythm of the sockeye runs in the Naknek and Kvichak systems (Behnke 1982). Sockeye fecundity operates on a five-year cycle. In years of poor runs, Nondalton residents concentrate their time and investments elsewhere; as can be seen in the low number of Nondalton residents who participated in the 1972-1974 commercial fishing seasons when Alaska Department of Fish and Game (ADFG) predicted runs to be small.

65 Ellanna and Balluta 1989[1]3:2.

66 Branson 2014; Ellana and Balluta 1989.

67 Morris 1986; Gaul 2007; Fagan 2008.

68 Ellanna and Balluta 1989[1]3:38.

69 Morris 1986:15.

70 Other 19th century disruptions are reported, so that it is difficult to link population decline to specific epidemics prior to the 20th century. For example, Znamenski reports: “Reportedly, of 600-800 people who populated Kijik, Iliamna and Mulchatna areas in the 1870s, by 1895 only 138 ‘Kenaitze’ remained alive” (Znamenski 2003:38-39). As part of the Leslie Expedition, Alfred B. Shanz and John W. Clark of the Alaska Commercial Company visited *Qizhje*h in January of 1891 (Fall 2006:167). They provided a census total of 40 people in the region suggesting the extent to which epidemics had impacted the populations of the area. As reported by Branson, “Shanz wrote he took a few photographs around the village, but no photographs from the expedition are known to exist. He also conducted a census of Kijik and another nearby village they called Kilchikh, and counted 40 souls” (Branson 2012:185).

71 Morris 1986.

72 In Stickman et al. 2003: 41.

73 Similarly, the eruption of Mount Redoubt in 1902 was recorded by Claude Cane and company (Unrau 1994: 233). A 1930s Nondalton school teacher Hannah Breece, documented oral historical data from the inland Dena’ina people who witnessed the volcanic activity: “Elderly people told me their fathers had described the same conditions long ago, followed by fire bursting out of a mountain and smoke and ashes falling about them although the fire was far away” (Jacobs 1995:154-155).

74 VanStone and Townsend 1970.

75 Ellanna and Balluta 1992:65.

76 Ellanna and Balluta 1992:65.

77 In Branson 2014: 206.

78 When still at *Qizhje*h, residents had to travel to Iliamna Bay to access goods. According to Albert Wassalie, “When—first they ever start using coffee, tea and stuff in Kijik, they used to go up in Kijik ... they had to go through the pass and they had to go to Iliamna Bay to get tea, coffee and stuff” (AW 1985). These patterns only intensified after resettlement.

79 Znamenski 2003; Holen et al. 2005; VanStone and Townsend 1970.

80 Branson 2014:121; Stickman et al. 2003.

81 Fall 2010.

82 Stickman et al. 2003.

83 In Jacobs 1995:129.

84 Hornberger 1986:4:57. This building was only used until 1962.

85 In Ellanna and Balluta 1989[1]7:13.

86 Many inland Dena’ina resisted these restrictions for as long as possible. Agnes Cusma described how her family resisted the stationary lifestyle that was required to participate in the government regulated, formal education of children in Nondalton:

“In 1930, they started a school in Old Nondalton. One thing the teachers couldn’t do was keep people from getting their meat and fish. My dad, like some other people at Old Nondalton, never completely stopped traveling around the country with us kids. ... In my case, I started school when I was 10 years old and went through the fifth grade. Then we all thought that I had had enough white man’s education” (in Ellanna and Balluta 1992: 128).

The effects of this change are still regretted by a number of tribal members. As Gaul observed,

“Dena’ina people today say that they constantly long to get back out into the greater areas around their village settlements. In the 1980s, elders in Nondalton thought that the greatest sacrifice their people had made as a result of western contact was to give up their mobility. ... The mobility that defined Dena’ina people for so many generations had been altered, and their identity altered with it” (Gaul 2007: 108).

87 Ellanna and Balluta 1992; Morris 1986.

88 In Ellanna and Balluta 1989[1]7:30.

89 As Ellana and Balluta summarize these changes,

“In this way, the demands of the ‘white’ world for the Dena’ina to send their children to school, attend church regularly, and obtain employment, if and when it was sporadically available, were integrated with a greater or lesser degree of success to the more nomadic way of life remembered wistfully but with vivid acuity by elders of the community” (Ellanna and Balluta 1989[1], Preface:4).

90 Hornberger 1986; Gaul 2007; Fall 2013.

91 Ellanna and Balluta 1989[1]Preface:2.

92 Fagan 2008:108.

93 Fall 2013; Tenenbaum 2013. Tenenbaum, for example, writes “Before Europeans came to the area, the Dena’ina did not use dogs for hauling sleds but rather utilized some as pack animals and trained others specifically for hunting” (Tenenbaum 2013:136).

94 Hannah Breece wrote of the importance of dogs while staying in Old Iliamna in 1910: “Almost every family in Iliamna kept a dog team and would have been helpless in winter without it” She also describes a time when “natives from Nondalton had arrived the night before and their dogs were considered especially fierce” (Jacobs 1995: 115-117).

95 Stickman et al. 2003.

96 Ellanna and Balluta 1989[2]9.

97 Balluta 2008: 122-23.

98 Speaking of the inland Dena’ina living in the Stony River area at that time, Kari notes,

“Even households that do not use dogs for travel have at least one dog, because they value them for protection at home and while out traveling. ... Dogs also frequently accompany snowmachines both for exercise and to provide transportation if the snowmachine becomes inoperable” (Kari 1985:58).

99 Fall et al. 2006:131. Changes in freezeup timing and locations may also affect the movement of caribou across the landscape and may be a factor in the “general movement of animals to the northwest, out of the Mulchatna River drainage and into the Nushagak River drainage” (Fall et al. 2006: 142).

100 This phenomenon is widely reported in the grey literatures of the last few decades. For example, an elder from Old Iliamna living in Nondalton “recalled changes to the traditional way of life when cash was introduced into the local economy, citing the use of snowmachines and the end of dog teams” (Krieg et al. 2007:83). A Nondalton resident in Fall et al. (2006) comments on the new dependence on gas to fuel these snowmachines: “They used to have dogs to travel long ago and put up a lot of fish for their dogs, today they have snowmachines [and] Hondas, and it takes a lot of gas to travel to those areas” (in Fall et al. 2006: 183).

101 Ellanna and Balluta 1989[2]9:77.

102 Ellanna and Balluta 1989[1]Preface: 3-4.

103 Ellanna and Balluta 1989:3.

104 Himes-Cornell et al. 2013.

105 Himes-Cornell et al. 2013.

106 Nondalton Tribal Council 2006:6.

107 Himes-Cornell et al. 2013:11.

- 108 Nondalton Tribal Council 2006.
- 109 Behnke 1982:14.
- 110 Behnke 1982: 25.
- 111 Wolfe 1983; Morris 1986; Wolfe and Walker 1987; Holen et al. 2005.
- 112 As Behnke noted a generation ago,
 “Summer was a critical period of time for earning money and preparing and storing salmon, a staple food. The village economy during other seasons revolved around the harvest of a wide range of local resources for household use” (Behnke 1982:40).
- 113 Nondalton Tribal Council 2006.
- 114 Himes-Cornell et al. 2013.
- 115 The cultural importance of the k’inq’ena, the manner in which they are collected, and the reverence required to properly care for items of clothing decorated with the shells have all been mentioned in prior reports:
 “According to the elders, long ago, these shells [K’inq’ena, dentalia shells] were collected from the lakes in the area. The k’inq’ena was viewed as having great value and was highly respected. The shells are referred to by the Dena’ina as ‘bugs’ because the shells had bugs in them. The ‘bugs’ were taken from the water only when it was needed for ceremonial purposes, for beads on clothing, like preparing for a memorial potlatch. This decorated clothing would often be given to the chief. They were not as commonly used to decorate clothing as quills were. The decorated clothing was also carefully stored, not to be ‘laid around anywhere.’ Children were not allowed to touch this clothing. These traditional beliefs were strictly followed. When the dentalia shells were taken from the water something was left in return. According to oral history the dentalia shells were found in fresh water lakes in the Lake Clark and Stony River area” (Evanoff 2010:58).
 According to upper Stony River people who now reside in Nondalton, k’inq’ena could also be found in the lake at the head of Swift River and were often acquired through trade networks (Ellanna and Balluta 1989[1]1). Mary Hobson remembers a place by Dazdlit Dazdlu used to pick dentalia shells (MH 1986).
- 116 Quantities vary, but it is not uncommon to have well over a hundred pounds of caribou and moose meat combined per household per year. According to a five-year study of harvests and uses of caribou, moose, bears, and Dall sheep in communities in Western Bristol Bay conducted by Holen et al. (2005), Nondalton residents brought home an average of 176 pounds of usable meat from big-game land animals in the years 1973, 1980, 1981, and 1983. Though dated, this is a useful reference point for conditions at the time of ANILCA.
- 117 In 2001, for example, it was noted that the salmon harvest was uncommonly poor, resulting in an intensification of big-game harvesting and an annual total of 374.0 pounds of usable meat in 2001, the highest harvest of large land animals (caribou, moose, black bear, brown bear) in pounds of usable weight per person of any community during that year (Holen et al. 2005).
- 118 Gaul 2015.
- 119 Gaul 2007.
- 120 Of these residents of Lime Village, 3.4% identified as White and 93.1% as American Indian and Alaska Native.
- 121 The Lime Village Trail is largely a winter trail once traveled by dogsleds, and now used for long-distance snowmachine trips. Long ago, people also traveled the trail in summertime on foot—a monumental journey, but possible in a few days by staying overnight at campsites intermittently located near water along the route. The trail remains important—both in maintaining social and cultural ties between the two villages, and in providing access to subsistence resources in lean times.
- 122 Of the total population, 83.3% identified as American Indian and Alaska Native, 5.6% identified as White, and 1.9% (one individual) identified as Asian. As with other villages in the area, a mixed subsistence and cash economy prevails in Stony River. The median household income at this time was \$30,000—higher than some other small villages in the area, and reflecting the longstanding role of the community as an outpost of economic activities in the interior Peninsula. The federally recognized tribe of Stony River is represented by the Village of Stony River, and its enrollees are also shareholders in Kuskokwim Corporation.
- 123 Gaul 2015.
- 124 Of the total population, 50% identified as Alaska Native or American Indian, 39.2% as White, and 2.9% as belonging to more than two races. Unlike the villages of Lime Village, Stony River, and Nondalton, Iliamna has been experiencing recent increases in population—some 6.9% since 2000. Estimated median household income in 2015 was \$69,546, with important sources of income for residents including the operation of fishing and hunting lodges, as well as sightseeing and tourism opportunities in and around Lake Iliamna and Lake Clark. Employment opportunities are largely seasonal and many lodge and tourism operators live elsewhere during the off-season. Iliamna’s federally recognized tribe is represented by the Iliamna Village Council, with enrollees also being shareholders in the larger Bristol Bay Native Corporation.
- 125 Of these 2010 residents, 85% identified as Native American, 8.75% as White, and 6.25% as belonging to two or more races. The median income in Newhalen in 2000 was \$36,250. The community remains significantly Yup’ik, but is home to both Dena’ina and Alutiiq peoples as well, and many families with mixed Native heritage. The federally recognized tribal community is represented by the Newhalen Tribal Council, while enrollees are also shareholders in the Bristol Bay Native Corporation.
- 126 Reger 2005.
- 127 Townsend 1965.
- 128 Of the total population, 40% identified as Native, 36% as White, and 24% as belonging to two or more races. The most recently reported population at the time of this writing is 43, a decrease of 14%. The median income in 2000 was \$36,938. As with Iliamna and Newhalen, a significant source of income in Pedro Bay involves fishing and hunting lodges and related tourist activities.
- The federally recognized tribe of the village is represented by the Pedro Bay Village Council, and in 1973, the Pedro Bay Corporation (PBC) was formed after the passing of ANCSA. The regional corporation is the Bristol Bay Native Corporation.
- 129 Fagan 2008:15.
- 130 Hill 2010a.
- 131 Kari and Kari 1982:8.
- 132 As George Alexie recalls, some people hunt by foot, even if they travel long distances by snowmachine or ATV:
 “I remember up in the Chulitna River, it was a long time ago. Darren was hauling his uncle’s sled, Tom. They were hunting moose. And his uncle, man when he hit moose tracks he was like an old moose. He was gone! (laughs) He’d stop, kick off his snow shoes, unhook the sled and told Darren, ‘Darren, walk. Here’s the snow shoes!’ And took off [after the moose]! ... Boy you could hear Tommy running around all over out in the woods (laughs)” (GA).
- 133 Ellanna and Balluta 1992:18. Some of these routes were astonishingly extensive, traversing high mountain passes:
 “Their travels included trips to areas on the coast inhabited by coastal Dena’ina. Since the Lake Clark area is surrounded to the north and west by mountains, they had to travel through mountain passes and over glaciers to get where they wanted to go” (Ellanna and Balluta 1989[1]2:33-34).
 As summarized by Kari and Kari,
 “To cross a mountain range on foot demanded many skills and great endurance. It meant traveling for weeks at a time, hunting along the way for food. It is something that few people alive today have experienced, although it was a regular part of life for the old time Dena’ina” (Kari and Kari 1982:55).
 When traveling through the mountain ranges, between interior and coastal destinations, Dena’ina travelers must traverse steep elevation changes, summits, and glaciers. Whenever possible, they utilize the tustes or sustes, the lower valleys or passes between larger peaks: “In earlier times, these passes furnished routes for trails (called tusten or susten) which the Dena’ina used to make trading and visiting journeys across the ranges” (Kari and Kari 1982:55).
 Passageways from the interior to the coast also required navigation over glaciers riddled with massive crevasses. Annie Delkettie describes how the Kijik and Stony River people would have to travel through the Lake Clark Pass to reach Tyonek, a treacherous task that necessitated walking over high mountain passes and crossing multiple glaciers (Ellanna and Balluta 1992). They would camp on the glacier and use poles to make bridges and mark trails:
 “Kijik and Stony River people walked to Tyonek over the high mountains. Now the glaciers have melted down (from where they were before). When they use to get on top of the glacier there was a big wide mouth (crevasse). Before they crossed the glacier, the younger men get some poles and carry the poles on top the glacier to cross the crevasse (to make a bridge of some kind). They
- also had pack dogs with them. They took their fur catch over for trading. They carried their beaver skins. They made a bridge with the poles being carried by the younger men to cross. Maybe they crossed the crevasse in two or three places. After they crossed the glacier, they saved the poles. They left the poles until they returned and used them on their way back across the glacier” (AD 1986).
- Some of these traditional trails and paths are now hiking trails in Lake Clark Park (Fagan 2008). Unfortunately these trails, especially those near developed areas, have eroded considerably as a result of the increased tourist traffic (Branson 2010). Others serve as flight paths for small aircraft flying between the interior and coastal areas (Gaul 2007, Ellanna and Balluta 1992). Lake Clark Pass is an example of this:
 “This pass, today a major flight path for small aircraft traveling between Anchorage and Lake Clark, historically provided critical transportation and communication corridors between the inland Dena’ina and their relatives, who resided on the coast of Cook Inlet” (Ellanna and Balluta 1992:13).
- 134 These routes have been widely described in written accounts of the region as well. In the early 20th century, Albert B. Shanz gave written “reference to the Telaquana Trail, and ancient Dena’ina route running north from Kijik to other villages at Telaquana Lake in the Kuskokwim drainage” (Branson 2012:186).
- 135 Tenenbaum 2013, Fagan 2008.
- 136 Ellanna and Balluta 1989[1]2:33. Sleds and snowshoes are widely reported, and widely praised, throughout the literature addressing Dena’ina tradition. Osgood (1933) noted that during his travel throughout Dena’ina territory, snowshoes were of superior design “combining a moose skin netting with a birch frame” (701). He also described the construction and use of wooden sleds that were made to transport goods and supplies pulled by people, often women (Kalifornsky 1991), but also men: “In the winter, simple sleds, heavily constructed from the harder sections of tree woods, were hauled by human power, either male or female. There was no re-surfacing of runners, and the simplest form of stern posts was erected if used at all” (Osgood 1933:701). Men and women pulled these wooden sleds over vast distances, covering many miles during the winter months (Tenenbaum 2013).
- 137 As Gaul summarizes,
 “Because they traveled so much, people developed technologies to facilitate travel and comfort. For basic backpacking and carrying their loads themselves, Dena’ina simply tied their bundles with a rope. Anton Evan said that both men and women would brace their load against a stick. They used to have a stick across their chest called hał duten... They used to call that a packboard or a packstick.’ Men used a narrower stick and women’s packsticks were wider, often carved with beautiful, intricate designs” (Gaul 2007:106).
 Evan (2010a) also describes the use of these hał duten and the differences in manufacture for men and women. Moreover, he describes a corresponding sack reserved for the transport of dry fish called a ‘food bag’:

“They’d backpack differently from how we backpack today. They used to bundle the pack with a pack board [with rope]. . . .For men, they made the pack stick real narrow. . . .For women, the pack board or stick, they used to make wider. The women’s pack board they used to make kind of fancy with designs carved along the edges and the end of it. . . .The dry fish they have in a special sack, a skin. This one they used to call ‘food bag’” (Evan 2010a: 55).

Equipped with these hał duten, the Dena’ina would undertake the task of walking the many miles to reach a destination, a task that required considerable “time, effort, and a degree of physical fitness or assistance to those who were unfit, very young, or very old” (Ellanna and Balluta 1989[1]3:38).

138 Ellanna and Balluta 1989[2]9:39.

139 This applies to coastal Dena’ina as well. This point has been made in diverse historical literatures. For example, quoting Unrau, some of the earliest census data on coastal Dena’ina people make these patterns abundantly clear:

“In 1880 . . . the Tenth Census report noted that the Dena’ina of Cook Inlet were ‘ardent hunters, spending most of their time and energy in the chase on the land . . . and often make long journeys into the interior, up and through mountain defiles, and even over summits and glaciers’” (Unrau 1994:231).

140 As described by Donita Hensley:

“When all details [of a ceremony] were completed and agreed upon, the village chief would send out messengers to all other Dena’ina villages to inform them of the potlatch. The messengers were young men who were proficient runners. The fastest runners were sent to the farthest villages and they needed to know how to navigate to those villages. They followed commonly used trails and crossed rivers and lakes in boats or by bridges. . . . Our ancestors say that because the Dena’ina traveled so extensively, they knew what was happening in every part of the world. My great Aunt Nellie Chickalusion said, ‘In those days it was nothing for a village to pack up and arrive in another village fifty miles away by the next day.’ Upon their return messengers usually told family members of recent global events, i.e., volcanic eruptions, earthquakes, snowstorms, etc. They also relayed family messages between villages” (Hensley 2010:82-83).

141 Donita Hensley remembers her Aunt Nellie commenting on the rate at which the Dena’ina were able to move from one village to another following such announcements:

“My Aunt Nellie said that ‘In those days our people traveled around pretty fast. . . . If a potlatch were called in Nondalton, Newhalen, or Lime Village, it would take Tebughna people two days to travel there. If a potlatch were called in Iliamna or Pedro Bay it would take three days for the Tebughna to travel there,’ and so forth” (Hensley 2010:84).

142 Tenenbaum 2013. June Tracy describes how Nondalton residents traveled to Tyonek to trade, to marry, and to bring home brides: “. . . I think our Dena’ina people were very intelligent, they knew the country. . . . [T]he people from Nondalton would go through Lake Clark pass over to Tyonek, Kenai way and trade with them. Bring some of their women’s home, ‘cause they never married within their own clan” (JT).

143 For example, one Nondalton resident quoted in Holen et al. (2005:120) describes the trip made from Nondalton to Lime Village: “I made the trip from here to Lime Village this year. From the top of the mountain (Hoknede Mountain) here to Lime Village, that’s 140 miles. . . .”

144 Again, quoting Randy Kakaruk:

“When you go on it, it’s just cool to see how it was when they were mapping it out. Again, it was probably easier for them because it wasn’t as brushy. Because now when you go down there it’s like, how did they know where to go? (laughs) But that goes back to that brush being there but—because then it was clear. But just, to me, when I’m on it, it’s just so cool to see how it was for them to map it out and know which routes to take. It just goes to show you how well they knew the land then” (RK).

145 Similarly, Kari notes,

“Most winter travel within the Stony River land use area takes place on frozen waterways, on trails between waterways locally called ‘portages,’ and in open country, the moist tundra, low-growing spruce forests and treeless bog environments. Winter trails along waterways and in open country are normally made with snowmachines” (Kari 1985:60).

146 According to Stony River residents, winter trails are best traveled when well-packed, with clear, calm weather and temperatures between +10°F and -10°F (Kari 1985).

147 Ellanna and Balluta 1989[1]2:22.

148 cf. Kari 1983:72; Gaul 2007:76.

149 Both human and caribou trails are carved into that portion of the landscape from countless years of use. These often appear in old surveys and other historical accounts. For example, in 1914, Philip S. Smith made observations of trails he found in the mountain passes as part of a USGS expedition through the Lake Clark-Central Kuskokwim region in 1914: “On almost all the more contiguous ridges are hard-beaten game trails, some of them work 2 feet below the general surface” (in Unrau 1994:239). It is likely that these are caribou trails, but would also be available for human travel. Similar observations of maintained trails were made by Stephen R. Capps during his expeditions throughout the Alaska Range from 1926 to 1929: “well-marked moose trails along all the larger valleys are of great assistance to the traveler, as they are relatively free from brush and follow favorable gradients” (in Unrau 1994:243).

150 Even marked trails can be hazardous in some conditions, Darren Cartikoff describes getting disoriented and then stuck in the snow while trying to cross the Groundhog Mountain trail in stormy conditions:

“It got dark and a whiteout and the east wind was howling. Snow drifting. I went over to check traps and I tried coming back and I got lost up on top [of Groundhog Mountain] so I just turned back and went back to the back side. . . . You got to know [that mountain]. . . . [I] came to a stop and I walked probably like from here to the edge of the road over there and I could see straight down, drop off. And I turned around and tried to climb back up following my tracks and I ended up getting stuck in the snow. And it was blowing snow so much, as I was digging

the snowmachine, the snow was just going right over the snowmachine. It was burying my snowmachine as fast as I was digging it out. So I got up and I went to the back side of the mountain where it wasn’t blowing as hard and went back down toward [the Chulitna area trail network]. But I didn’t think I would ever be able to get lost up there until the first time I went up there when it’s whiteout; couldn’t even see from here to the edge of my skis on the snowmachine” (CD).

151 Water crossing in the course of travel can be a dangerous undertaking for those unfamiliar with local water and ice characteristics. In Andrew Balluta’s narrative K’etnu Nuch’delggeshi, Crossing Streams, he cautions Dena’ina travelers (Balluta 2008). Adept travelers must beware of the water levels and the location of ice, testing the ice before entering the water:

“/Therefore they would build bridges for various purposes. . . .

/Far to the upstream, where the trail crosses the stream, upstream there they can wade across.

/There they would go across using a pole.

/Just a really strong person would probe a pole to the bottom (of the stream) and,’

/also some people upstream of him would hold a pole in between them and

/with that then one person thrusting a pole on the bottom and,

/and using that they would wade straight across” (Balluta 2008: 78-82).

152 Hannah Breece describes a trail between Old Iliamna and A.C. Point in 1910 that appears to have benefited from such regular and intensive maintenance: “The trails were narrow along the edges of mountain gorges. . . .” (Jacobs 1995:67). She later comments that “the trail had been cut around some of the more dangerous parts, branches had been trimmed, logs removed, and rude bridges crossed the smaller streams” (91).

153 Similarly, Kari has noted that “Trails are cut in heavily vegetated areas by clearing trees and brush with chainsaws, axes and other cutting tools” (Kari 1985:60).

154 It was a trail messenger’s task to rally the many warriors from each village to the task at hand: “Back in the days when they used to send runners when they used to have battles with the Eskimos and the Aleuts, Dena’inas used to send runners inside all the villages looking for warriors” (BTJ).

155 To cite one of many examples, Vasili Kashevarov, a Russian missionary, described how he was able to utilize Dena’ina winter trails in his travel journey on February 11, 1904. The trails were maintained to a degree that he could describe a point where he lost and then rediscovered the trail he was to follow: “At first, indeed when we went along the bank of the river the route was very good. But then we started stumbling on small frozen river islands and soon lost the path. . . . By chance I stepped on a correct path, which still went along the bank” (Znamenski 2003:295).

156 Hill 2010a. Ellanna and Balluta refer to this phenomenon, which augmented well-established trade patterns along existing routes:

“Travel to trading posts located on Cook Inlet through the rugged and twisting glacial mountain passes of the Alaska Range; down the Stony River to the Kuskokwim; traversing the length of

Lake Clark, Six-Mile Lake, and the Newhalen River and portage to Iliamna Lake; or across the Chulitna River portage to the Mulchatna and downriver to the drainage of the Nushagak were all difficult journeys on foot. The inland Dena’ina packed their small children and hauled sleds with supplies not carried by their sturdy dogs during these trip” (Ellanna and Balluta 1989[2]9:39).

157 “As soon as they put up fish and you know they use to sell dry fish to Hans Severson. And then they use to pack the fish over the portage. And then they make money and buy everything that they need. They buy shells and everything. And then they come back [to the village] by rowing their boats. When there is a west wind, they put up sails. Then they had no motors or no nothing. . . . And then they leave the skiffs there and unload and pack all their stuff above the rapids up to the upper side. You know big trees. And then they pull the skiff. One of them has to hold the pole and two or three of them is pulling them. They pull and they then bring it up there and then they load up. And then they go up” (AD 1986).

158 Jacobs 1995:127.

159 Gaul 2007:77.

160 Fall 2010:144.

161 Hobson 2010: 29.

162 George Alexie gives one example of a time when disorientation in the fog created an emergency situation as he traveled to and from the Chulitna River area:

“Two winters ago we went down through here and we were going to go back to that valley. . . . got up here and went up here and man that [fog] started—real bad. . . . I thought we were going to come back through here but we ended up on the highest point [we] kept on going but my partner went up on the hill like that and was going to make the turn and the snowmachine rolled on him and popped his [sternum] bone right there. . . . Yeah, boy! It was hurting. So we camped there with no sleeping bags. . . . I had my winter gear and I slept pretty good but he was hurting and cold. He started his snowmachine every 10 minutes. I had to start it for him because he couldn’t pull on it. And he started his snowmachine throw the power cord, lay on top of the hood and warmed up that way. And about the time morning came around he was out of fuel” (GA).

163 Cartikoff et al. 2010:15.

164 cf. Osgood 1933, Cartikoff et al. 2010.

165 Balluta 2008:85. In his narrative, Chik’a Hnideyeli, Embedded Sticks (as trail markers on snow swept tundra), Andrew Balluta recalls,

“/My father was traveling behind some people and then it got foggy on him and

/it snowed on him.

/And it got windy on him, as he was following behind them it seems.

/And the trail had vanished on him.

/Sticks, long ones

/he had put upon the sled.
/Then we (Andrew and his sister Betty) were small.
/Following those people he started to go through a mountain pass.
/Then they had made a straight trek through that pass.
/Those embedded sticks were just straight (through there)...”
(Balluta 2008:83-84).

166 Ellanna and Balluta 1989[1]1.

167 Kari 1995:28.

168 Holen et al. 2005. In the 1980 and 1990s, wood was still the principal source of heating fuel in most homes. As Ellanna and Balluta (1989[2]8:19) write, "... birch and spruce were the only source of fuel for heat in the past and remained the primary source of the same in the 1980s for in excess of 75 percent of Nondalton Dena'ina households and 100 percent of Lime Village households."

169 Gathering wood is a constant activity throughout the winter (Behnke 1982). As wood supplies near village sites are consumed, residents must travel farther and farther away to satisfy their needs (Holen et al. 2005). For example, "With [Sixmile] lake frozen [in November], people were able to cut wood southeast of the village and haul it back by snowmachine. Wood cutting continued to be a major activity throughout November and December..." (Behnke 1982:40).

170 Ellanna and Balluta 1989[1]1.

171 MH 1998.

172 In Jacobs 1995:150-51.

173 For example, Osgood documented the use of alder and cottonwood in the construction of conical shelters and temporary shelters used when traveling and hunting:

"The conical shelter built with a frame of alders was used by [almost] all the Tanaina. ... [with] a birch bark covering or, on occasions, moss. ... Another variety of lean-to, common to all, was a somewhat longer shelter used at hunting camps. Cottonwoods with rotten centers were split and hollowed out and then laid on alternate faces, forming a sort of corrugation which was practically waterproof" (Osgood 1933:700).

174 In Fall et al. 2006:175-176.

175 Hobson 2010:30.

176 Near the top of Groundhog Mountain there is a spring that is often visited by travelers passing over the mountain summit today:

"There's always a spot where Darren got some water right here... it's right before you get on the backside over here. And we stopped there and I dumped out my water bottle I got from here and filled up on that. Then I got home and just to compare it was pretty clear. Another spot that has freshwater is Caribou Creek. That's usually another spot we get water from before you continue up this way if you're running low on it" (RK).

177 Brown and Burch 1992.

178 Clarence Delkettie, for example, observes:

"Another thing is a key factor too in all that too is like you got to be physical. You got to bring your kids up and get them up early in the morning and put them to work and tell them not to be lazy. Make them run, make them work, they need to work really hard. If they couldn't work really hard and they want to be lazy you know what they did to kids a long time ago when they were young and they wanted to be lazy and they didn't want to listen...They only kept the ones and they would teach them to you know learn to work and do things right and listen to their parents. The ones that didn't want to do that, I mean, they disciplined them. That's a big deal there too around disciplining them. If they want to do wrong, you got to hurry up and correct them while they're young. Because if you don't discipline them while they're young, you're not going to make any headway by the time they're a teenager... when they're real small like that, you got to discipline them the right way. As they grow up they learn that. You don't wait for them to be a teenager or older, that's way too old. By the time they're that age they wouldn't want to listen to you or whatever. The key factor is teaching them while they're young" (CD).

179 Certain parts of brown bears are left behind at kill sites as part of this tradition:

"There's a certain part you're not supposed to take back. I remember Darren was showing me that. There's a certain part of the heart that you want to cut off and you leave out there with it. Because the heart, a lot of people eat the heart still, that's fine, but...you can't take that part right there. You want to leave that out there with the animal. ... I guess it's the main artery that supplies blood for the whole animal. You want to leave that there because it was like it was its lifeline there. And see that's the kind of stuff when you learn though I mean. It's traditional, that's why. And it's—I don't want to say it's dying but it's... that's the only way you can describe it is that" (RK).

Traditionally, the bear was taken to the water instead of the land, reflecting ritual associations with the water, though interviewees sometimes question whether the land might be a more suitable place to dispose of its remains:

"When they killed a brown bear, they'd take the brown bear and dunk it in the water. But I there's I guess different beliefs around that. To me, if you're going to kill a brown bear, you still leave it there with the land so that it's out of respect" (FS).

People also traditionally removed the eyes from brown bear after the kill, as part of these rituals:

"We was having camp across the lake here, it took like six people to get... It was a monster. He was huge. And I remember seeing pictures of it and it showed a picture of my Uncle cutting the eyes out... because they said the spirit of the animal is so strong.... I don't want to say that's disrespecting the animal or anything but they believed that their spirit was so strong that it was necessary or it would come back for you; something along those lines" (RK).

180 Seeing hunters being incautious with their shooting, Randy Kakaruk summarizes it this way:

"No respect... that's exactly what it was. I'm not trying to tell people where they can hunt but man, if you're out there to hunt, at least put an effort in it. They were shooting just to shoot. I mean it was ridiculous" (RK).

181 He adds that this is why he prefers to seine salmon as opposed to other harvest methods:

"That's what I like about seining them. I'm glad they do that because with seining you can take how much you want. You don't want to take more than you have to. And seining allows you to do that. So when you seine, just count how much you got and you release the rest" (RK).

182 On this point, Randy Kakaruk summarizes it aptly: "It wasn't just about our schedule in order for us to have a continuous resource we have to respect when they're having their offspring you know" (RK).

183 These birds follow hunters, but also people fishing: "ice-fishing too, there's usually two eagles, all the sudden they're sitting there" (FS). Randy Kakaruk jokes about these birds also following hunters and taking their kill before they can reach them:

"There's that certain eagle that follows everyone everywhere when they go fishing or bird hunting (laughs). There's always like three, four of them that's always around and as soon as they hear us shooting [they swoop in]. I remember I was bird hunting with Chuck [Trefon] and he was teasing me because I'd lost like eight birds and he was saying, oh the eagles know the sound of your shotgun!" (RK).

184 Agnes Cusma describes one way she and her siblings were taught to both respect and look after the needs of their elders:

"We're going to talk about how we used to help out old people. That's before school because our parents were teaching us how to respect old people. So they sent us to a couple there. And they asked us what we want. 'We're here to carry water for you.' Oh, they were glad to hear it. They gave us buckets and then we start carrying water: they had five gallon cans. Fill up their five gallon cans and then they said 'We got enough water for overnight and all day.' And so they, the old lady go to the cupboard, and bring out how many of us were carrying water, she brings out pilot bread and cook sugar. She put cook sugar on that pilot bread and hand it to us. But we have to put out our hand like this, [open and flat] not this way [grabbing]. We have to put out your hand like this and they put it in your hand. No, don't reach for it. ... No money, but we were satisfied. We didn't know what money was" (AC 1998).

185 "[A]s expressed by one [Nondalton] resident: 'What we have enough of we share, what we don't we can't share'" (Morris 1986:148). Reallocation of resources continues to be an important practice today. Formal studies of big-game hunting indicate that nearly 100% of households in Nondalton used moose and caribou products, whereas only approximately half of all households actually participated in the hunting process (Holen et al. 2005) Richard Nelson attested to the importance of subsistence foods in the preservation of a cohesive inland Dena'ina community: "Athabaskan people not only prefer to eat Native foods, but they have also made them a central part of their social lives through networks of sharing that bind families and neighbors to one

another" (in Ellanna and Balluta 1989[2]8:148). Kinship is the most predominant link by which food is distributed and exchange networks are established between and within communities. According to interviews conducted in Nondalton by Morris: "data from the surveys indicated that interactions occurred between certain sets of communities more frequently than with others... based on shared ethnic affiliation, biological and affinal ties, shared religious affiliation, and to a lesser extent, geographical proximity" (1986: 148).

186 RN in Ellanna and Balluta 1989[2]8:2.

187 For example, an elder from Nondalton recalls a specific instance where the residents of Nondalton, learning that winter food stores were low in Lime Village, sent a supply of fish, describing "[A] time when Lime Village did not have enough fish to last the winter, and Nondalton people pooled together to send enough fish to Lime Village to last them until spring" (Krieg 2007:82). And to this day, there continues to be a significant degree of sharing that takes place between the communities of Nondalton and Lime Village. For example, residents from Nondalton regularly send caribou meat to one another by aircraft or snowmachine (Holen and Lemons 2010:6).

188 Similarly, Rick Delkettie observes,

"They did wrong [when the state established hunting regulations]. We have to hunt by the [seasons]. I remember when we used to hunt around here. They weren't looking for no big horns. There's a certain time of year they don't bother certain things too. They let them move. They won't bother them until the next year. Ok. Certain way too, they'd do trapping. A lot of guys nowadays, they don't know. You only get the big ones... you can get the babies [but you leave them]. That's the future" (RD).

189 Behnke 1982:53.

190 Fall et al. 2006: 175.

191 As Gaul (2007: 72) suggests: "Travel was directed by people's knowledge of the availability of particular resources under certain conditions, which called for a fair amount of flexibility within regular seasonal patterns of movement."

192 Ellanna and Balluta 1989[1]6:43.

193 "Early winter, from November to January or later, was usually a period of rest in villages. ... They visited other communities, traded, told stories, and held memorial potlatches (Fall 2013:27). Such patterns are also discussed throughout the Dena'ina world, and feature prominently, for example, in the accounts of Peter Kalifornsky.

194 For example, Pete Koktelash recalls that during the winter and early spring season, he and his father traveled from Denyihntnu to Dilah Vena (Telaquana village) to visit Trefon Balluta and Andrew Balluta and their families – in part related to church observances (Ellanna and Balluta 1986).

195 As elders reported to Fagan,

"The people moved away from winter houses in summer, when salmon fishing became all-important. The ice breakup and

general thaw of spring tended to flood semi-subterranean houses [such as those utilized in the winter], so it was a good time to move. Their summer dwellings lay close to important fishing places...” (Fagan 2008:108).

196 AW 1985.

197 In Ellanna and Balluta 1986.

198 Ellanna and Balluta 1986:6-17.

199 According to one Nondalton family: “[E]veryone was done picking nets on Sixmile Lake by... July 22, although they commented that some Nondalton residents, those with summer fish camps at One Tree Island on Lake Clark, were still setting their nets in late July” (Fall 2010:146).

200 Turner Bay being named for a non-Native resident, Sam Turner. The Dena’ina name is Ch’alitnu Hdakaq’ Hkayitadghi’u, ‘mouth of flows out river bay’.

201 Behnke 1982:58.

202 Ellanna and Balluta 1989[1]6:48.

203 AB in Ellanna and Balluta 1989[1]7:11.

204 In Ellanna and Balluta 1989[1]7:19.

205 Evanoff 2010.

206 Fall et al. 2006.

207 Balluta 2010: 42.

208 Jacko 2010:71.

209 In Fall et al. 2006: 178.

210 Fall 2010:32.

211 Ellanna and Balluta 1989[1]6:39.

212 Echoing this, Albert Wassallie described traveling extensively with his parents as a child, then continuing to visit these same areas as an adult: “I’ve been all over Tazimina. ... Everywhere. I’ve been on Talarik Creek, Upper and Lower Talarik Creek, Koktuli and... hunting. Every place we’d go we used for hunting, trout. After I grew up, I went by myself” (AW 1985).

213 Morris 1986; Fall et al. 2006.

214 Both moose and caribou are large animals contributing a significant number of pounds to the annual harvest weight totals: “The average harvestable weight of a caribou is 150 lbs., while moose average 500 lbs of harvestable meat. The potential for so much meat makes it worthwhile to travel further to find a moose...” (Holen et al. 2005:49).

215 Modern elders’ accounts match those of a generation ago: “Without question, the inland Dena’ina in the 1980s perceived Mulchatna caribou and the moose... to be the two most important sources of food and raw material” (Ellanna and Balluta 1989[1]1:36). One interviewee remembers how his mother would

cook and preserve caribou and moose:

“They dried it, my mom used to fry it a little bit and then put it in a barrel, layer it, meat and oil, meat and oil and pack it like that. I saw her do that. They put it in brine or dry it. They fry it and put it in moose guts or you know, caribou food bag then they sew it up and they keep it like that for wintertime” (in Fall et al. 2006: 177).

According to elders who spoke with Holen et al. (2005)

“Subsistence hunters know that the meat stays fresher longer left on the bone. They bring it back to the community quickly after the animal is killed, and then hang it in drying shacks on the bone or freeze it immediately. Once in the drying shack, the meat will remain edible all winter, and is removed from the bone just prior to cooking” (Holen et al. 2005:127).

216 The importance of caribou and moose in the diet of the Dena’ina continues to be paramount. During the 2001-02 hunting season, 57.6% of households in Nondalton hunted moose, but a full 100% received and utilized moose meat or raw material in some manner (Holen et al. 2005). During this same timeframe, 42.4% of households in Nondalton hunted caribou, 27.3% harvested caribou, and 93.9% received and utilized caribou meat or raw material in some way (Holen et al. 2005). As interviewees still attest, “[C]aribou and moose were eaten fresh and were frozen and dried for later consumption to such an extent that imported beef was insignificant in the local diet” (Ellanna and Balluta 1989[1]1:40).

217 As elders of a prior generation attested, “Obtaining raw materials was as important or more important than meat during the fall hunting period” (Ellanna and Balluta 1989[2]8:48). Every part of an animal, whether moose, caribou, bear, or sheep is traditionally utilized by the Dena’ina in the form of clothing and footwear, tools and weapons, shelter and boats:

“Caribou hides were used in multiple ways, including as the covering on a spruce framed dwellings or kayak-like boats... historically and as material for bedding, footwear, rawhide lines, clothing (fawn skins were used for underwear), and many other purposes historically and, to a large degree, contemporarily” (Ellanna and Balluta 1989[1]1:40).

Caribou bones were used to make spears and points while caribou sinew was used for sewing as thread, floss, string, and twine. Caribou stomachs were used as drag floats. Moose horns were modified for use as plates and food containers (Ellanna and Balluta 1989). One Nondalton resident in Fall et al. (2006) remembers the importance of caribou and sheep hides as bedding used as protection from the elements while traveling, stating: “Long time ago they used to use the skin, they make blanket out of it or sleeping bag for winter. My dad and them used to get caribou and sheep too, making sleeping bag out of it for traveling. We used to sleep in caribou skin too; they cover it up on each side” (177). Much of the clothing (parkas, hats, gloves, boots, snowshoes) created by the Dena’ina has been made from the hides of caribou, moose, Dall sheep, bear, beaver, fox, land otter, mink, and lynx. Furthermore, hare “pelts were used in home sewing” (Morris 1986:73). According to Townsend (1970), boots are traditionally made from a combination of bear, beluga whale, caribou, or sheepskin. He relates that “[k]nee boots were made with soles of brown bear or beluga and tops of caribou or sheep skin...” (Townsend 1970:8). Behnke (1982:53) describes the use

of moose and caribou hides in the creation of snowshoes and mukluks, and the use of caribou sinew as thread: “[I]n 1981 some Nondalton Dena’ina used moosehide as rawhide for snowshoe webbing, and softened or tanned caribou and moose hides for mukluks. At least one older woman continued to use caribou sinew for thread in sewing fur articles of clothing.” These are only examples – the uses of animal products obtained in the study area could easily become the focus of an independent study.

218 e.g., Behnke 1982.

219 Hunters’ acuity and successful returns are important for supplying meat and material not only for themselves and their immediate families, but also the entire community. During the 2001/2002 hunting season 51.5% of households in Nondalton reported giving moose, while 90.9% received moose (Holen et al. 2005). During this same hunting season, 36.4% of households in Nondalton reported giving away caribou, while 90.9% received caribou (Holen et al. 2005). These numbers reveal that a small number of hunters are responsible for acquiring enough moose and caribou to sustain nearly an entire community: “Moose and caribou were major resources to the people of Nondalton, together supplying about twenty percent of the total harvest weight in 1981. ... Meat was widely shared between households in the village” (Behnke 1982:2).

220 As elders relayed to Fagan, “The success of the chase depended on the intimate knowledge of the quarry’s habits and also on superlative stalking expertise, which allowed the hunter to get within striking distance of the animal” (Fagan 2008:105).

221 As many elders attest, “The use of firearms in hunting caribou diminished the use of cooperative techniques and encouraged more individualistic hunting strategies” (Ellanna and Balluta [1]6:35). Accordingly, Mary Hobson relates her memories of hunting big game alone in the mountains requiring only minimal help from her family members:

“That’s all I’m good for, hunting after... summertime, wintertime, any time. Sometimes I went up the mountain myself. Nobody would go with me. Kill caribou: cut it, skin it, hanging up the... It’s good. We dried it on the mountain, that caribou skin. We used a stick, put a stick in there. ... All the uncles come up there and help me (laughs)” (MH 1998).

222 Holen et al. 2005.

223 Holen et al. 2005; Fall et al. 1996.

224 Written documentation of these patterns in the Alaska Peninsula region has a long time-depth. In the Tenth Census report published in 1880: “Moose, single and in family groups, can be found feeding throughout the low brush-wood and alder swamps” (in Unrau 1994:231). Kari expounds on these patterns as they relate to subsistence uses, writing:

“Although moose roam widely and are found in a variety of environments, they tend to occur near bodies of water and in brushy areas where they feed on aquatic vegetation and shrubs during the open-water season. ... In the winter moose feed primarily on brush and occur where it is available. Their movement patterns are influenced by snow cover, as moose have difficulty walking in deep snow and try to avoid it” (Kari 1985:70).

225 Ellanna and Balluta recorded local hunters’ knowledge on this point: “Moose prevalently spent their time during these [late fall and winter] months in valleys where willows and alders were abundant sources of food” (Ellanna and Balluta 1992:167).

226 In Unrau 1994:240.

227 Ellanna and Balluta (1989[1]41) also describe how moose hunting required extensive travel into the Mulchatna and Stony River drainages. “Prior to the 1920s... they [moose] were present on the upper Mulchatna and Stony river drainages. According to oral historic accounts, the inland Dena’ina traveled to these drainages to harvest these infrequently available but highly valued animals.”

228 Significant historical areas for moose harvesting include Middle Fork, Kuskokwim River, Swift River, and Telaquana Lake. Albert Wassallie would travel “to Mulchatna and Middle Fork [#549, Tsilak’idghutnu or Chilikadrotna River] to get moose meat” (AW 1986). Alex Trefon also mentioned Middle Fork as traditional moose hunting territory, saying, “Before the moose and caribou came in this country, we used to go in the Middle Fork country for moose and caribou” (A. Trefon 2010b: 201). Finally, Agnes Cusma marvels at the distance traveled in order to hunt and harvest a moose, stating, “And so they took those five dogs with them. And they went way up Middle Fork. That’s a long ways. That’s how far they went before they saw a moose and that guy killed it” (AC 1998). Fall moose hunting was also done along the shorelines of the Kuskokwim, Stony, and Swift Rivers. The Telaquana Lake area was an important destination for hunting moose, as one Nondalton resident recalls:

“Well, they didn’t have any moose when I was small, they had to go way up Telaquana to get their moose or middle fork, but right down here there was none. I was born [in] 1921, and they have to go far as Middle Fork I guess, to find a moose, that’s way up. It’s over Telaquana way, on the other side, going toward Telaquana” (in Fall et al. 2006: 181).

229 Since no later than the 1920s or 1930s, Nondalton hunters and residents have hunted large numbers of moose near the village and in the Chulitna Basin area around Lake Clark: “Moose became an important resource in Nondalton in the 1930s when they began appearing in large numbers in the Lake Clark area” (Morris 1986:108-109; Behnke 1978:53). Alex Trefon retains a vivid memory from his childhood of the first moose that entered the area, as he stated, “I must have been only eight years old [when the moose first came]. So that would be what year? 1920?” (A. Trefon 2010b:201).

230 B. Trefon Sr. in Holen et al. 2005: 49.

231 Ellanna and Balluta 1989[1]6:35.

232 Fagan 2008:105.

233 Osgood (1966) describes the knowledge that Dena’ina hunters say are essential to successfully tracking moose:

“Moose are shot as the occasional opportunity offers while traveling, especially on the rivers or lakes during the periods when the flies are bad, or again in the deep snows. But ordinarily the chase requires considerable care and a thorough understanding of the habitats of the animal. To begin, the hunter

- must know that moose feed in the early morning and late afternoon and lie down to rest in the middle of the day” (Osgood 1966:34).
- 234 Kari 1985:70.
- 235 Behnke 1982: 58-59.
- 236 Ellanna and Balluta 1989[1]6:49.
- 237 Although moose snares are no longer in common practice, elders once described this technique in detail:
- “This method of snaring, involving the use of a spring pole, required that a single hunter or hunting partners locate a moose trail. A rawhide or rope snare was set between two trees that set on either side of the game trail. A hunter climbed one of the tress – always a young and flexible live tree – and attached one end of the snare to the top of that tree. Once snared, the moose attempted to walk away with the snare around its neck or its rack. The tree to which the snare was attached to the top bent elastically until the tension was too great, at which point it would recoil pulling the moose back in its trail. Such a snare was checked daily and only used by older or infirm hunters who were not as capable of moving too far across country or by any hunters who needed game but were unable to hunt far afield because [of poor] travel conditions” (Ellanna and Balluta 1989[1]6:36).
- 238 Ellanna and Balluta[1]6:35.
- 239 Morris 1986.
- 240 Behnke 1982, Fall et al. 2006.
- 241 Fall et al. 2006. George Alexie regularly hunts for moose up by Long Lake, Nicovena, Groundhog Mountain, Snowshoe Bay, and Hemorrhache (GA). Nancy Delkettie also identifies Long Lake as a good moose hunting location. Darren Cartikoff described Long and Nicovena Lakes as prime hunting areas, as well as the entire river corridor. The creek entrances to the lakes are said to be especially good places for moose hunting.
- 242 So too, Randy Kakaruk describes this transitional zone in the upper Chulitna River Basin:
- “You could see the transition. When you’re down here a ways, you can just look and you’re like, ‘Oh yeah, this is moose country.’ You know, you could tell. When we were up there above the river is caribou country now. Just the landscape it was interesting to see that. And sure enough, right after we were saying this is caribou country, we were drifting back down and got one” (RK).
- 243 In the late 1800’s, fires ignited by mining prospectors drove moose away from their traditional migratory areas, making hunting difficult for Nondalton Dena’ina. Hornberger (1986:4-5) writes: “The priests reported that the Natives hunted moose to sell to traders and that the prospectors caused a number of forest fires that made life difficult for local Dena’ina.” For example, Priest John Bortnovsky on July 2, 1897, wrote: “Means of existence are being exhausted more and more each year. The hunting grows poorer. Frequent forest fires caused by American prospectors either exterminate the animals or drive them to safer places” (in Townsend 1974:9, 23).
- 244 Such observations are numerous in such sources as Holen et al. (2005:50): “One resident relates, ‘After they burned it out, the vegetation grows back. . . All those low birch are growing back, that’s what those moose are after.’” Another Nondalton resident reported to Holen et al. (2005:50) that fire-induced vegetation change brought moose near the village:
- “The moose population has exploded in the area surrounding Nondalton. One hunter suggests that this is due to a recent burn which has created ideal conditions for the propagation of tree species such as birch and willows, prime moose feed. One elder said that over the past year he has shot three moose right in the back of the village.”
- 245 A Nondalton resident identified “Jola Lake” in 2004 as a location where moose were hunted – “the only location not taken over by nonlocal hunters during moose season” (Fall et al. 2006:186). The place is apparently such a well-kept secret that even some Dena’ina interviewees consulted for this study are vague as to its location.
- 246 In Holen et al. 2005: 126.
- 247 Fall et al. 2006:182.
- 248 Holen et al. 2005:50; Behnke 1982. Some attribute the movement of moose away from waterways such as the Lake Clark area to an increase in boat traffic over the last few decades, which may make “it more difficult to take moose in the fall” (Behnke 1982:39).
- 249 The first written observations of caribou and the use of caribou by the Dena’ina people in the Iliamna Lake area were made by Russian explorer Petr Korasakovsky during his visit with to Dena’ina communities in July and August of 1818 (Holen et al. 2005:25). An 1829 report by Ivan Vasilev, another Russian explorer, observed that caribou populations were extensive reaching from “Bristol Bay to Norton Sound, including the lower Yukon and the Kuskokwim River drainages as far inland as Innoko River and the Taylor Mountains” (VanStone 1988 in Holen et al. 2005:25).
- 250 Kari 1985.
- 251 The core of the Mulchatna caribou herd, a traditional focus of inland Dena’ina hunters, calve in an area reaching “the Alaska Range on the east and through the hills around Turquoise and Twin lakes and then westward towards Snipe Lake and the Bonanza Hills, although calving occasionally occurs in the Koksetna Hills near Fishtrap and Caribou lakes” (Ellanna and Balluta 1989[1]1:40).
- 252 Holen et al. 2005:27.
- 253 Fall et al. 2006: 180.
- 254 Behnke (1982: 7-8) notes that small groups of the Mulchatna herd will also utilize calving grounds in the Stuyahok Hills east of Iliamna Lake and the study area, sometimes residing there year-round.
- 255 In the summer and early fall, Dena’ina traditionally began to mobilize from summer fish camps toward mountainous fall camps, hunting along the way:
- “Caribou in the mountains were generally pursued by hunting partners in pairs. Skillful hunters were aware of the locations at which caribou were feeding in late summer. They left the camp on foot and attempted to traverse high country from which they observed game below and downwind of them” (Ellanna and Balluta 1989[1]6:33).
- 256 Kari and Kari (1982:55) describe a variation on this method of hunting:
- “[The Dena’ina] built long caribou fences (bak’nin’iy,sex). Many people cooperated to erect such a fence, building it out of ‘jack spruce,’ stunted spruce that is often found in this kind of country. The fence funneled the migrating caribou toward set snares, where they were caught in large numbers”
- Remembering this technique being used at the head of the Stony River, Alexie Evan writes, “Long ago, before our time, they used to set snares for caribou on this mountain at the head of Stony River, which is called Qayantda” (Evan 2010b:171).
- 257 Morris 1986.
- 258 As Behnke observed in the 1980s,
- “Four or five parties went up the Chulitna River as far as the Nicovena to the Lakes area and took at least one caribou which was shared between four households. . . . Caribou were said to be more plentiful on the upper Chulitna River, but the long distance and shallow water usually discouraged effort in that area during fall” (Behnke 1982:37-38).
- 259 Hunters from Nondalton sometimes also begin hunting in the Upper Talarik and Upper Kuktuli drainages, and “if caribou are not found closer to the village and there are good snow conditions, hunters travel into the Mulchatna drainage in the Tutna Lake area about 30 miles northeast of Nondalton” (Behnke 1982:61). In addition to traveling long distances, caribou hunters must exercise stealth and strategy, oftentimes traveling in groups. Once the caribou are located, the members of the group attempt to herd them toward strategically placed hunters. However, as Behnke describes, “caribou frequently are spooked by snowmachines, even at long distances. In rough, partially forested areas, it is often hard to get close enough to shoot” (Behnke 1982:61).
- 260 Gary Alexie remembers hunting for caribou around Groundhog Mountain, stating, “Yeah, usually we follow caribou down there, some of them down there but not much” (GA). And Clara Trefon recalls hunting caribou at Pickerel Lake, Keyes Point and Snowshoe Bay, using the Portage Trail. She says, “[W]e used to go over to Pickerel Lake and get a caribou and come back, you know. . . . We go up by Keyes Point and Snow Shoe Bay for caribou sometimes, on the inside of it by that trail, portage trail” (CT). Hunting grounds around the Volcano and Groundhog Mountain areas are familiar to many Dena’ina hunters. Randy Kakaruk and Fawn Silas would go caribou hunting up around these areas, as did Jack Hobson, who states: “Our hunting grounds would be up there by Groundhog. . . . That’s where we get our caribou from in the summer time and winter time we get them back here [pointing]” (JH).
- 261 In the early 1900s Turquoise Lake was also the site of an occupied community and fish camp (Ellanna and Balluta (1989[1]1): 12-13). As identified by Ellanna and Balluta, Turquoise Lake is an especially important site of caribou calving. The Dena’ina named this place Vandaztuntnu, or “caribou hair stream,” as the caribou are so numerous in this area that, when they pass through, their shedded hair accumulates in and around the waterway. The name encapsulates the significance of the location as a calving ground within the larger traditional ecological knowledge of caribou migration and residence. Describing this phenomenon, Ellana and Balluta note, “The inland Dena’ina term for its outlet, Vandaztuntnu or ‘caribou hair stream,’ demonstrates their cognizance of this ecological fact and their long-term interest in this site as a location for caribou hunting activities” (Ellanna and Balluta 1989[1]1:13).
- 262 In the 1800’s, documents showed that the Mulchatna caribou population size peaked in the 1860s then experienced a decrease. By 1880, the herd no longer traveled to the Yukon and Kuskokwim River drainages (Holen et al. 2005), and according to a report published by the BIA, fear of starvation forced people to locate to more promising hunting grounds as “herds declined at the turn of the twentieth century (Kankanton and Delkettie 1975)” (BIA #AA-11092: 29). In 1970, there was again a concern that the Mulchatna herd showed signs of decline. Photo censuses by wildlife biologists, however, showed an increase in herd size over the next 15 years (Holen et al. 2005: 26). According to a resident of Nondalton “in the past, maybe 40 years ago, caribou never came up past Nicovena Lakes, about 30 miles south-east of Nondalton” (Holen et al. 2005:26). Holen et al. note that, “however, maybe as the herd has grown they have been seen up near Nondalton every few years.” Continued documentation in the 20th Century has seen a general increase in population of the Mulchatna caribou herd. In 1981, the herd was estimated at 18,599 animals (Holen et al. 2005). By 1985, the herd had increased to 37,000 head (Morris 1986). In 1996, the herd had grown to 192,818. In past decades, changes have been seen in the calving areas of the caribou herd. Traditionally the Mulchatna caribou herd arrived at calving grounds in the upper Mulchatna River and Bonanza Hills during the springtime. In 1994 this changed to the area between the Nushagak River and upper Tikchik lakes and again moved in the late 1990s to the King Salmon River and Klutuspak Creek drainages of the upper Nushagak River (Holen et al. 2005).
- 263 For example, one Nondalton hunter reports seeing a scarcity of caribou in the Chulitna River Basin in the Hoknede Mountain area:
- “There used to be lots of caribou, going up on the Chulitna or on the mountain (he points out the window to Hoknede Mountain which is right behind the village, just over the mountain is the Chulitna River valley), [you] used to see caribou all the time but over the past years it seems to have declined” (Holen et al. 2005:27-28).
- 264 In Holen et al. 2005:46.
- 265 As Alex Trefon stated, “We used to go back in Mulchatna country to get caribou. No caribou around here at all” (A. Trefon 2010b:201). Dena’ina hunters’ knowledge of their traditional landscape and caribou’s migratory patterns allow hunters to continue the traditional harvesting of caribou. Clyde, a Nondalton hunter relayed that “during one of his last caribou hunts, he had to travel about 100 mi one way before he managed to harvest

an animal” (Fall 2010:147). In 2004, eighteen caribou were taken by Nondalton residents. Most of them were harvested on a small stream near Upper Talarik Creek (Fall et al. 2006). Some hunters had to travel beyond the northern limits of Lime Village to harvest caribou according to a Nondalton resident who reported, “Last year [2003] they had to go all the way past Lime Village to get caribou; moose too. ... Caribou used to come out on the beach, there’s less moose and caribou” (in Fall et al. 2006:182).

266 Behnke 1982:40.

267 Examples are numerous, and provided here to substantiate this assertion. Melvin Trefon made similar comments regarding the movement of caribou away from traditional migration routes, suggesting that noise and vibrations made by drilling operations in the area contributed to this phenomenon: “The mining... as soon as they shut down, then the caribou came back. I mean obviously, their blasting, it gotta be sending little shock waves, they’re saying (the caribou), ‘oh we don’t want to be over there’” (MT). Ada Trefon and Gary Alexie observed a change in the caribou migration routes, with Alexie directly associating the changes “with that... mine project because their exploring up there” (GA). Not only are the caribou averse to noise caused by the exploratory mining operations, Bill Trefon, Jr. suggests, but they were required to change migratory routes due to physical changes being made to the landscape. He details that over the last 10 years the caribou have followed a new migratory route toward New Stuyahok attempting to circumnavigate the disruptive processes caused by drilling and blasting:

“I mean the only thing I can think of it has to do with the mine. For sure when they started blasting and drilling down here in the mine which is actually the migration route for the caribou. And they go up to Twin Lakes, the calving ground, they had to come through, right through where that mine is. Now they got to go up the Nushagak, up toward New Stuyahuk, up toward Taylor mountains then come around. ... There was a time we used to have caribou across the village here by the hundreds. Not anymore, not since that mine came in” (BTJ).

In recent years, exploratory operations for the mine was postponed. As a result, Melvin Trefon has seen an immediate return to traditional calving grounds:

“In the summer time back along here, in these mountains above Frying Pan (lake) usually is the calving grounds. ... [T]hey like to bring their self across Chulitna, the Chulitna... goes through Nicovena here and go up toward Mulchatna, and Dutna [‘down that way people’] lake ... and those lakes up there, their up there now about 2000 strong at Dutna lake, and so they’re back in our country. They been gone for about 10 years” (MT).

268 Osgood was one of several observers who documented extensive Dena’ina use of small animal furs; in his 1933 text ‘Tanaina Culture’ he makes several passing observations such as “The men’s caps were of fur: if of marten, one skin forming the top and another the sides” (1933:699).

269 Gaul 2007:98.

270 Branson 2014:212.

271 For example, Mary Hobson remembers trapping and hunting

camp on the Swift River, saying, “They got [trapping and fall hunting] camp too, some place on the Swift River, right at Valatga’ Qelchini [#246, ‘the one that’s made like a tent’], a mountain that’s shaped like the roof of a tent” (MH 1986). And Andrew Balluta recalls a temporary fall hunting camp at K’ilghech’ (a valley south of College Creek), that he went to with his father, Gabriel Trefon, and his father’s brothers, Alex and Pete, who actively hunted moose and caribou (AB in Ellanna and Balluta 1989[1]7:7). He also mentions Nan Qelah (Miller’s Creek) (AB in Ellanna and Balluta 1989[1]7:2-3). Andrew recalled that during trapping season, “[t]he trail they followed went from Chaq’ah Tugget to Hukughitenitnu (a creek that runs into the head of *K’q’uya* Vena) to Nusdnigi Q’aghdeq (a valley on the Koksetna River) to Tsilak’idohutnu (Chilikadrotna River or Middle Fork on qasht’ana maps). This route was also used for hunting moose and caribou during late fall and early winter” (AB in Ellanna and Balluta 1989[1]7:12).

Other interviewees reported similarly extensive traplines in the areas. From 1944 until 1964, Paul Cusma would travel with his wife Agnes to their trapping camp at Chachitnu (the Chilchitna River). They maintained a trap line “from Chachitnu west along the Mulchatna River to Hqak’elaxtnu (#530 – Moose Creek below Springway Creek), northeast along the Mulchatna River to Nii’aghedlen (#548 – mouth of the Chilikadrotna River), the location of Pete Koktelash’s trapping cabin” (Ellanna and Balluta 1986:6-32). They trapped small furbearers from December through January until beaver season in February and March. Agnes Cusma remembers how her husband traveled to their trapping cabins from Nondalton to trap fox, otter, and mink beginning in the fall months and continuing into January:

“Every year in the late fall, my husband also went up to our cabin on the Mulchatna River to trap fox, otter, mink, and other animals for their pelts. He remained there until January, making only a couple trips back to Nondalton during this time. In February, he brought all of us up to the cabin above the Chilchitna River for beaver trapping. We had a steam bath there and a cache. We stayed there until the end of March” (AC in Ellanna and Balluta 1992:134).

Similarly, Gabriel Trefon ran a northerly trapline from Dilah Vena to Tutnut’echa Vena (Two Lakes) during the winter season, from the first of December until the end of March: “The spike camp was at Tutnut’echa Vena. The second segment of Gabriel’s trapline ran from Dilah Vena south to K’a Ka’a...” (Ellanna and Balluta 1986:6-26). He trapped for fox, lynx, wolverine, land otter, mink, and marten. During an interview in 1986, Martha Hobson Trefon, a Nondalton woman in her mid-40s, recalled winter trapping, saying, “I was going trapping every year until my first son went to school.... We stayed right about – you know where that trail comes down from Mulchatna? Right there we stayed. We trapped up there [in] wintertime.... The last year we trapped in Kijik” (Ellanna and Balluta 1989[1]:1). According to a BIA report, winter trapping camps in these areas were commonplace: “Oldtimers plan to travel to the old village site on snowmobiles. Many of them trapped in the area long ago” (BIA #AA-11092:29). Pete Koktelash remembered that in the winter and early spring season (approximately December until the end of March), his family would leave “Old Nondalton by dog team to go to Qalnigi Tunilen ... From here they took Hukughitenitnu (#419 – a dry creek that runs into the head of Kijik Lake) trail and traveled by dog team to Denyhtnu (#594 – a canyon on the Mulchatna River). ... This site

was their trapping base for fox, wolverine, lynx, land otter, mink, and marten” (Ellanna and Balluta 1986:6-17).

272 Fall et al. 2006; Ellanna and Balluta 1989. Behnke (1982:39) observed this trend by the late 1970s and early 1980s, as families switched between motorized boats and other motorized vehicles to do the job: “One or two men traveled down the Newhalen River by boat to put out otter and fox traps in early November. As the weather got colder, the use of boats declined, and two families with three-wheelers used them to travel out to check traps.”

273 Behnke 1982:61.

274 Interviewees have often spoken of trapping in the Mulchatna River area: “Mulchatna... head of Mulchatna, use to trap around there. ... We used to trap – one year we trapped in Hoholitna” (AW 1986). A Nondalton resident suggested “Mulchatna was a good area for trapping because it’s easy trapping there, water doesn’t get that thick, certain parts. Whereas Chulitna, if your [sic] trapping there, the ice gets 5, 6 feet cause you know, [freshwater] fish [and] salmon don’t spawn in Chulitna, king salmon and rainbow spawn in Mulchatna so it’s easier trapping there, most of the people trapped there” (in Fall et al. 2006: 183). Rose Hedlund (born in Chekok) also went trapping in the Mulchatna region when she was young: “We used to go up to Mulchatna and spend three winters there trapping...” (RH 1985). “Around here and Mulchatna’s the only place [we trapped]. ... A couple times we went up to Tazimina and all that” (RH 1985).

275 Alex Balluta recalls that he and his family would trap “all around... Caribou Creek [#484, Q’uk’tsatnu or Koksetna River] and Middle Fork [#549, Tsalik’idghutnu or Chilikadrotna River] we use to” (AXB 1986). It was located in Viy Ka’atnu, “big inside stream.” Alex Balluta personally trapped from the month of November into the month of March, and said “We used to go over to Tsilak’idghutnu [#549 Chilikadrotna River] and to a place called Ptarmigan Creek camp” (AXB 1986). When he was younger, Alex’s father would trap with him at Lynx Creek, K’chanlentnu, as well.

276 A resident from Nondalton spoke of the intersection between Telaquana Lake ancestry and enduring trapping activities in that area:

“Well my dad’s from Telaquana, that’s a big lake there, that’s where he was born, and we went up there in the summer time, wintertime. After we start school, we don’t go up there anymore, him and mom used to go up there and trap” (in Fall et al. 2006: 181).

Similarly, Annie Delkittie’s parents and grandparents would spend the winter at Ch’kendakket. Annie recalls that her “dad used to trap way up Telaquana and from there, every year, a different place. And from there, I remember he used to trap in Stony River” (AD 1986) at Dunk’elashnu. From there they would go to Whitefish Lake where her father would continue to trap. Yet Telaquana Lake was a major trapping area in its own right: “Telaquana is a big lake itself and they used to trap all the way around the lake for fox and everything. Also, land otter in the little rivers, little creeks” (AD 1986). The Balluta family also often trapped in this area: “They go far as there, all the way to Telaquana” (Balluta 2010:41). Some sources suggest this ceased a few generations ago, as trapping became focused on the Chulitna River and nearby “According to some informants, trapping at Telaquana ceased in the mid-1930s”

(Ellanna and Balluta 1989[1]6:46). Tutna Lake was also the site of a formerly significant beaver camp, where people trapped and processed beaver in the winter.

277 As Clarence Delkettie explains, this requires considerable practice and skill:

“I sent a fur out to this one fur buyer and he told my friend... said, ‘All these furs are skinned excellent but how come there’s holes? How did this guy kill the wolverine?’ (laughs) So I said—he said, ‘Yeah, they couldn’t find the holes in there and they was wondering how you killed it. I said, ‘Every time I came up to my wolverine I took my glove off, and maybe I was about here to you from the wolverine, and I had my gun all ready like this. I had my glove in my hand, I throw it over there and that wolverine would look toward the glove there. As soon as he turned his ear towards me, broadside like that, I would plug him right-square in the ear’” (CD).

278 In addition to the meat and hide of the beaver, Beaver teeth have been used in the construction of cutting utensils and weapons. Ellanna and Balluta (1989[1]:48) report: “Beaver teeth were used for making arrowheads, some spear points, and special carving knives.”

279 Ellanna and Balluta 1989[1]6:45.

280 Ellanna and Balluta 1989[1]7:13.

281 Ellanna and Balluta 1989[1]6:54.

282 Ellanna and Balluta 1989[1]6:56.

283 For example, Osgood (1966:35) observed that “when a hunter finds a beaver house, he breaks into it, which forces the occupants to seek the various exits. A dog is used to discover these holes and a man set to watch each one.” Fagan (2008) identifies the importance of small land animals as a source of subsistence for inland Dena’ina, specifically listing rabbits, porcupines, and especially beavers, as “[b]eavers could be taken at any season by breaking into their dens and then using dogs to discover the exits” (Fagan 2008:106).

284 Ellanna and Balluta 1989[1]6:16. Similarly, Pete Koktelash ran a trapline from Nii’aghedlen to Lih Vena (Whitefish Lake) where he had a spike camp. Pete and Ruth would trap “small furbearers during December and January. In February and March they would use the same trail to trap beaver” (Ellanna and Balluta 1986:6-21).

285 In Fall et al. 2006:178.

286 This observation is common in the oral traditions and literature of the Dena’ina. “Beaver are found in all parts of the Tanaina area and are hunted at any season, although one informant said that they are not good to eat in May” (Osgood 1966:35).

287 Ellanna and Balluta (1992:148) describe springtime beaver trapping, as beaver was less likely to spoil relative to moose or caribou meat:

“Beaver hunting occurred at the same time and in the same places as trapping. Beavers were hunted with small-caliber firearms, such as 22s. beaver hunting and trapping forays occurred in the

- long spring evenings or early mornings when the prey were out feeding on birch, willow, cottonwood, or alder. Beaver meat, more resistant than moose or caribou to deterioration in the warmth of the spring, was smoked and dried and taken back to the village.”
- A Nondalton resident in Fall et al. (2006:182) recalls that they put beaver meat in brine water to soak and then eat it. Osgood (1966) observed beaver tails being boiled and then roasted on a stick as a method of preparation: “Rabbits are commonly roasted on a stick, as are beaver tails, the latter being first put in hot water to remove the skin. The rest of the beaver meat is generally boiled. Beaver entrails, except liver, are not eaten” (1966:43).
- 288 Ellanna and Balluta 1986:6:13.
- 289 A Nondalton resident in Fall et al. (2006:180) describes the extensive area in which the inland Dena’ina conduct trapping activities:
- “There’s a camp; the most recent camp is right under there (Ground Hog Mountain). . . . All over that area, all the way Mulchatna, Dunta Lake, Whitefish Lake, all the men, families used to go out, [and] Chulitna, they trap beaver there. Little Mulchatna, all over, Pete Koktelash had a cabin there. Nicovena, Long Lake, they trap all over there, trapping, hunting, fishing, in all these places they were trapping were camps. There are camp sites all over that area. Hoholitna they trap there, any place they trap is an abandoned camp area, people don’t go that far much any more. Chilchitna was a very popular place for trapping, because they used to get moose too, when there was so much snow. Bonanza Hills, they trapped up there too, abandoned camps, Swan Lake, they been all over trapping. They always came back for church holidays in May.”
- 290 Still, there were geographical outliers in the Nondalton community. During these same months, Nicholai Carltikoff trapped beaver around Lower Tazimina Lake, saying how “the area that they use to trap was right, right in this area. If they even use to travel all the way up the head of the lake here, right, say, far as Satal-’iy [#332, north of Upper Tazimina Lake], and . . . like this area for beaver trapping” (NC 1986). Remembering that her father spent most of his beaver seasons with other men on the Swift River, Mary Hobson reports: “That’s the place we always trap and set trapping line.” She further describes traveling the trapline: “We do in one day, we have to go over there in a bad weather and lots of snow – we have to stay overnight with the dogs, in the tent we’d stay overnight. . . .” (MH 1986).
- 291 In Ellanna and Balluta 1986:6-14.
- 292 Shaw 2013:125.
- 293 Ellanna and Balluta 1989[1]:47.
- 294 Townsend 1970:7.
- 295 Many Nondalton residents recall the use of the qunsha not so much as a food item, but in the construction of mittens and other winter clothing items: “Mountain squirrels too, the used to eat mountain squirrels, we don’t eat it today, maybe the elders, but we used the skins to make mittens, hats, parkas” (in Fall et al. 2006: 180).
- 296 Ellana and Balluta 1989[1]: 47.
- 297 Gladys Evanoff (GE) especially recalls that her grandmother and another woman often traveled to an area in Pedro Bay to trap ground squirrels, packing in with a dog: “. . . I used to go with my grandma. They used to walk so she used to pack me on her back. She had a dog with a dog pack on. Then they get those squirrels and they dry the skin. I guess they dried the meat too” (GE).
- 298 Koktelash 2010:178.
- 299 Ellana and Balluta 1989[1]: 47.
- 300 Fall et al. 2006:178.
- 301 Balluta 2010:41.
- 302 This area was especially important in the days of dogsleds, when travel was slower:
- “You know a long time ago the dogs were slow. They weren’t like the snowmachine. It would take a day to get that far and then you’d have to camp. And then from there you make it all the way down to Koktuli” (GA).
- 303 A Nondalton trapper in Fall et al. (2006:180) also remembers hunting rabbits and beaver, as well as lynx and wolverine: “Ground Hog too, they used to hunt jack rabbits, lot of jack rabbits all over Ground Hog Mountain. They used the fur, eat the meat. Lynx too, they eat lynx, all over, you can get lynx all over, beaver too, wolverine. Mostly in the winter they trap lynx.”
- 304 According to the Fall et al.’s (2006) “Community residents continue to use their traditional trapping and hunting areas around Groundhog Mountain.”
- 305 Krieg 2005:54-56.
- 306 Alex Balluta recalled, “We usually stayed in the mountains for the entire month of September and then returned to Nan Qelah. Other years my family and I went to Qinghuch’una (a mountain at the head of the first creek from the north which runs into the Chulitna River) or to Venq’deltihi (a mountain with a lake on it northeast of the Koksetna River)” (AB in Ellanna and Balluta 1989[1]:7:9).
- 307 Ellanna and Balluta 1989[1]:7:10.
- 308 A number of families maintain traplines along roughly circular trail routes that extend from Nondalton to the Chulitna River Basin, and back again. Randy Kakaruk, for example, describes one trapline:
- “There is one. . . .right took out from here [at Nondalton], went up to Boys and Girls and then came around this way [to the northwest]. And the pretty much went straight across, follow [Chulitna] river back down straight down to [Lake Clark] on the Point. . . .[they trapped the whole route] all the way up to Nicovena” (RK).
- 309 Fall et al. 2006:176.
- 310 Ellanna and Balluta 1989[1]:47.
- 311 Ellanna and Balluta 1989[1]:48.
- 312 Pauline Hobson 2010:29.
- 313 Ellanna and Balluta 1989[1]:44.
- 314 Ellanna and Balluta 1989[1]:44.
- 315 As winter approached and bears prepared to hibernate, Dena’ina hunters in groups of three or four followed the bear to its den. The hunters then provoked the bear to emerge from its den and speared it once it emerged (Fagan 2008). As Ellanna and Balluta (1989[1]:6: 41) write, “Then a group of men approached the den, with younger, stronger, and more skillful hunters closest to the den. An object which smelled of human scent was thrown into the den to attract the attention of the bear, which had not yet fallen into the type of sleep characteristic of full hibernation. The bear emerged from the den to protect his territory and the most skillful hunters speared it.” Similarly, Richard L. Proenneke recorded the accounts of Tony Balluta regarding bear hunting:
- “Before guns the Natives used to use spears to hunt and kill them [bears]. Catch them in hibernation—come down to the den entrance from above. Disturb the bear and as it came out, spear it from above. . . . He also said that a bear lays two ways during hibernation. Lays one way until about Xmas time and then the other way (Branson 2005: 452-453).
- Ellanna and Balluta (1992) describe a type of spear called a dineh that was thrown at bears as they swam across bodies of water: “During fall hunting trips, swimming brown and black bears were taken at waterways in the mountains by means of harpoon-like spears or dineh” (Ellanna and Balluta 1992:29).
- Traps and snares were also employed at this time of year to capture a bear. At times deadfalls were constructed over holes filled with fish:
- “They dig a hole and then put fish in there, and they put a stick across there and make a trip. So that when he goes in there, that stick trips and falls in. This, I guess, is . . . a deadfall or a trap for black bear, wolverine, fox, marten, all sorts of small animals” (Bobby 2010b:179).
- 316 Balluta 2008:126-128.
- 317 Holen et al. 2005; 79. According to one Nondalton hunter speaking with Holen et al. (2005:79):
- “[W]e will go out of our way to find one.’ Brown bears, he says, are only killed because they come into the fish camps and then only the fat is harvested. Black bears on the other hand are considered a delicacy and will be taken whenever they can be found. Hunters report that they use ‘everything’ from a black bear.”
- 318 In Holen et al. 2005: 82. Still, one Nondalton resident commented on the decline of bear hunting:
- “We hunt less because of more modern things we use. Long ago we used to run around looking for bear holes to get at them, and we did eat a lot of black bear then. Nowadays there is not too much. We would have to go a long way to hunt now” (Holen et al. 2005: 82).
- 319 Wassillie 2010d:75.
- 320 Ellanna and Balluta 1989[1]:7:10. In another interview Andrew Balluta describes their hunting and tracking technique in greater detail:
- “Lay for them at a fish pond where they’re fishing. . . .At a day, in day time you know, we take a fish pond and go all the way around it. . . .Find out where all the tracks – the main bear trail – comes out. . . .And then we watch our wind. . . .And we’d make kind of a blind there and sit on the opposite side, especially in moonlight. . . .It’d come out and we’d let them [the bears] get as close as from here to the door” (AB 1986).
- 321 Ellanna and Balluta (1989) observe that the methods and means of bear-hunting vary depending upon the time of year, explaining, “Traditionally brown and black bear were hunted in the mountains during fall excursions, while swimming across waterways, or at their dens in late fall or early spring with spears, bows and arrows, and, rifles or trapped in snares or steel traps” (1989[1]:45). In the fall, bears are intent on finding enough food to build up fat stores for winter months, so at this time they are also hunted “in open, high country as they foraged for berries. . . . Young men were provided with the knowledge of bear behavior and the appropriate physical skills to undertake this relatively risky type of hunting activity with success” (Ellanna and Balluta 1989[1]:6:36).
- 322 Fall et al. 2010; 2006; Behnke 1982. Fall et al. (2006:170) further expounds upon this:
- “Spring and fall are seasons for hunting migratory waterfowl on their way to and returning from their nesting areas. . . . Of all migratory birds, mallard ducks and geese were the 2 most harvested resources. Fall also sees hunting for upland game birds. Both ptarmigan and grouse were harvested by Nondalton residents in 2004.”
- 323 Bird hunting historically intensified in the spring months when provisions collected in the fall near depletion. “[A]t Lime Village, hunting migratory birds resumed in late March” (Fall 2013:15). Ducks, geese, and spruce hens remain central in the spring diet of the inland Dena’ina:
- “[F]rom mid-April until they began nesting in mid-May, flocks of Canadian geese and a diversity of ducks landed in feeding areas and were taken by the inland Dena’ina using small steel tarps and firearms – a welcomed change of diet [from] the smoked and dried salmon of the previous summer and the moose and caribou, when available, of winter months” (Ellanna and Balluta 1989[1]:6:15).
- 324 Fall et al. 2010; Morris 1986.
- 325 In Krieg 2005:56.
- 326 In Fall et al. 2006: 182.
- 327 Ellanna and Balluta 1989[1]:48.
- 328 Areas just beyond the study area are also good hunting areas for these birds. For example, as interviewees recount, “The road along Newhalen River provided good spruce grouse habitat and easy hunting access” (Morris 1986: 73).

- 329 Fall et al. 2006:171.
- 330 Ada adds that ducks are also hunted extensively at Nundalтинshla, “little lake that extends across’ lake in Newhalen River, west of Alexie Lake” (AT).
- 331 Ellanna and Balluta 1992:148; Fall et al. 2006; Morris 1986.
- 332 Jack Hobson remembered headdresses being made from duck feathers, saying, “for the old head dresses, I am not sure which one they use, but I know they used the feathers, a lot of those ducks come in, they got that really pretty colors” (JH).
- 333 Townsend 1970a:73.
- 334 Stickman et al. 2003a.
- 335 Formerly, the harvest number was closer to 20 to 25 bundles per household. In the 1940’s, when the Dena’ina relied upon dog teams, additional salmon would be harvested for dogs, who required up to 50 bundles, or 2000 salmon, each year (Ellana and Balluta 1989).
- 336 Fall et al. 2006:169.
- 337 Behnke 1981; Fall et al. 2006; Stickman 2003.
- 338 According to historic oral narratives, Dena’ina families from the Lake Clark area would travel in search of king (Chinook) and silver (coho) salmon (*Oncorhynchus kisutch*) to the Mulchatna area. These fish had many attributes that justified long journeys: “King salmon were valued for their flesh, the skins, which were made into waterproof boots, and the oil which was rendered from boiling their heads” (Ellanna and Balluta 1989[1]:34).
- 339 Morris 1986; Fall et al. 2006.
- 340 Stickman et al. 2003:11.
- 341 Stickman et al. 2003; Behnke 1981:6.
- 342 Ellanna and Balluta 1992:27.
- 343 Stickman et al. 2003.
- 344 Fall 2010.
- 345 In Fall 2010:57.
- 346 Fall et al. 2010:72.
- 347 Behnke 1982.
- 348 In Fall et al. 2006:176-177.
- 349 In Fall et al. 2006:177.
- 350 Morris 1986; Behnke 1982.
- 351 Evanoff and Ravenmoon 2013:123. Similarly, another Nondalton resident explains that “[t]hey used to dry fish, dry meat [and] dry trout. For salmon they didn’t have salt so they used spruce bark and they buried the fish so no air gets in. In the springtime after the winter, they dig it up and it is almost as fresh as when they put it in” (Fall et al. 2006:177). Before the introduction of salting as a means of preservation, salmon were “stored in spruce and birch bark lined fish pits in the ground (chugilin g’a) between layers of fireweed leaves for fermentation. ... Fish stored in this fashion were often left for a year or two or even multiple years for use as an emergency food supply for dogs and humans during lean times” (Ellanna and Balluta 1989[1]:6:27). Some residents of the upper Stony River remember this method of preservation, a buried cache that was left for up to six years, being used into the 1960s.
- 352 Ellanna and Balluta 1989[1].
- 353 As Behnke (1981:6-8) writes, “These fish may be hung whole to ‘freeze-dry’ or they may be stacked on the beach to freeze, and later retrieved for use. ... Salmon to be preserved for dog food are split, with the sides left connected by the tail, and then dried on racks outside or in large smokehouses.”
- 354 As reported to Fall et al. (2010:61), “[T]he owner [of a camp at Nondalton Fish Camp] also kept fish heads under water by hanging them on a line attached to the cutting table, one step in preparing a fermented fish dish commonly called ‘stink heads’”
- 355 Holen 2009:112.
- 356 Ellanna and Balluta 1989[1]:6:39-41.
- 357 Mobility to and from the campsite often weighed heavily when choosing where to set up camp. Olga Balluta explains, “Wherever they could catch the fish faster that’s where they made their fish camps. It was too hard for them to row back and forth all the way down the river and lug their fish around” (Stickman et al. 2003:39). Traditional tenure was a significant influence as well. As Ellanna and Balluta (1989[1]:6:12) write, “The selection of camp sites was based largely on the traditional use of areas by particular families or a system of usufruct rights.”
- 358 Stickman et al. 2003:39.
- 359 Ellanna and Balluta 1986.
- 360 For example, some inland Dena’ina families have frequented Ts’atenaltsegh (Horsehoe Bend) as a traditional fish camp. Albert Wassallie recalls that his family moved from the vicinity of Nondalton Fish Camp to this site “[O]ur first fish village use to be in ... above the Landing [#307. Ch’ci’untnu, present landing on the Newhalen River]. We stayed there many years Fish Village [...lower end of Nundalтинshla or Lake in Newhalen River]” (AW 1986). Eventually, the family shifted locations: “. . . We stayed there [in Nondalton Fish Camp] for I don’t know how many seasons. Then we moved to Horseshoe Bend [#314, Ts’atenaltsegh a creek below Fish Village]. We stayed there three summers” (AW 1986). Alex Balluta also spent time at Ts’atenaltsegh. He and his family would stop at Old Nondalton for a short time before moving on to their fish camp for the months of July and August. He said, “[R]ight there at Horseshoe Bend [it was actually located at the upper end of Horseshoe Bend or #314, Ts’atanaltsegh]” [‘yellow water creek’] (AXB 1986). In the summer season, the third or fourth week in June until the end of August, Pete Trefon and his father moved to their “fish camp one mile upriver from Ts’atenaltsegh, on the Newhalen River. . .” (Ellanna and Balluta 1986:6-17). At a distance further up the river, Gabriel Trefon-Balluta had a summer fish camp at the upper end of Nundalтинshla (a lake in the Newhalen River) (Ellanna and Balluta 1986).
- 361 Stickman et al. 2003; Behnke 1982.
- 362 Fall 2010:58. Likewise, Mary Hobson observes, “People used to fill up their smokehouses. There was no people who stayed in the village, kids and all. Now it’s different. People come down to fish camp, get what they want in just a couple days. Nobody hardly stay at fish camp. We used to stay at fish camp for two or three months” (in Stickman et al. 2003:45).
- 363 In the northern part of inland Dena’ina territory there is only one salmon fishing season. *K’q’uya* do not spawn on the upper Stony River, but gh’elica harvests occur in the fall above Qeghilen at the northeastern end of Telaquana Lake and near the Turquoise and Twin Lakes area. As mentioned in Holen et al (2005:119), “People from the Nondalton/Lake Clark area used the Turquoise Lake/Twin Lakes area in the fall for hunting and late fall fishing for spawned-out sockeye. In October, ‘fall fish camps’ (naqeli nuch’etdeh) were bases for fishing, brown bear hunting, and sheep hunting” (Ellanna and Balluta 1992:147, 154, 162).
- 364 In Fall 2010:71; Anelon 2010.
- 365 Fishing families often share fish with family and friends locally, in adjacent communities, and even out-of-state (Fall 2010). According to Behnke’s 1981 study, one Nondalton woman—assisted by her husband and grandchildren—caught enough sockeye salmon to supply “three households with dried fish. . . [and] she supplied about 20 salmon to another family which did not fish but usually canned salmon each year, in return for baked bread” (Behnke 1982: 34).
- 366 “The comparison often used when one is asked what fish camp is like is, it’s like Christmas, only better” (Evanoff and Ravenmoon 2013:126).
- 367 Holen 2009: 105.
- 368 Shaw in Fall 2010:175.
- 369 Parametrix 2010: 19.
- 370 As the salmon begin the trek upstream to spawn, the Dena’ina follow them along the shores of the Newhalen River, transitioning from summer to fall fish camps located upriver at the now abandoned village of Kijik:
- “The Kijik Fish Camp site covers both banks of a river that drains from Kijik Lake into Lake Clark, about one half kilometer below the outlet of Kijik Lake. Along the north side of the river, the fish camp appears as a long, narrow, cleared area. The cleared area is surrounded by forest growth, and is approximately 200 meters wide. The site located on the south bank of the river is much smaller. It extends 60 meters along the bank and is at the most 30 meters wide. The site is situated on the slopes of a steep hill that rises abruptly from the river bank” (BIA #AA-11838:181).
- Others converge at the following campsites near Kijik: Tuke’eleh (the south creek of the Kijik River delta), Qatnigi Tunilen, and the lower Tanalian River (Ellanna and Balluta 1989[1], BIA #AA-11838). According to Nancy Delkettie, Kijik maintains a moderate population of fishers during the fall fishing season, stating, “There’s a few people, quite a few people that still go up there [at Kijik], get their fall fish” (ND).
- 371 For example, in 1818 Russian Pete Korsakovsky visited Lake Clark and documented the inland Dena’ina name for the lake as, “Kidzhik” or “place people gather”—a direct reference to the large numbers of inland Dena’ina families who gathered there each summer during harvest time (see Branson 2014). Albert B. Shanz and John C. Clark made similar observations of the Kijik Lake fish camps when they passed through the area as part of The Leslie Expedition in 1891: “Shanz referred to the Dena’ina as the Kilchikh Indians and noted the similarities of their language to the Kenai Indians on Cook Inlet. Importantly, Shanz noted the Kenai name for Lake Clark was Kilchikh-Vonn, which is the phonetic spelling for *Qizhjuh* Vena or Kijik and meaning ‘place people gather lake.’ This is a testament to the fact of the prodigious annual red salmon migration to the extensive white spruce and birch forest resources. Large permanent villages were occupied at various locations on the Kijik River delta for several hundred years before the party arrived on Lake Clark. Kijik is considered to be the largest intact group of prehistoric Athabaskan villages in Alaska, and is now part of the Kijik National Historic Landmark” (Branson 2012:186).
- See, e.g., Bureau of Indian Affairs allotment files for additional historical information on the fish camps associated with Kijik (e.g., BIA #AA-11838:184).
- 372 As reported by Ellana and Balluta,
- “In the early 1900s (prior to 1915), the area which had been used for summer fish camp locations in the vicinity of modern Nondalton flooded. The following year, most families moved to Nundalтин Q’estsiq’ (the outlet of Six-Mile Lake) or along the banks of the Newhalen River as far downriver as Nundalтинshla. Camp sites were much more scattered after this time. . .” (Ellanna and Balluta 1989[1]:6:24).
- 373 As noted in Stickman et al.
- “Most of the sites currently used for fish camps are located below Nondalton on Sixmile Lake; clustered around the headwaters of the Newhalen River in an area called Fish Village, or along the banks of the Newhalen down to Nundalтонshla, about six miles downriver from Fish Village. Several families, such as Bill and Martha Trefon’s, have fish camps on Lake Clark. The Trefon’s maintain a large fish camp at Chi Point, a small point located several miles down Lake Clark from the location referred to as Chi Point on USGS quad maps” (Stickman et al. 2003:39).
- Over time, outlying camps along Newhalen River were significantly abandoned as more families concentrated their efforts at Fish Camp. According to Olga Balluta, “After they got their machinery, motors and stuff, then they moved up to the lake [Sixmile Lake] up here and it was easier for them to run down there and haul it up. So that’s why they were abandoned” (OB in Stickman et al. 2003:42).
- 374 Gaul 2007; Stickman et al. nd: 30.
- 375 In Parametrix 2010: 19.

- 376 A number of prior studies have also noted this preference. Holen notes,
- “Nondalton residents also say that they prefer the taste of locally caught salmon and that they would rather subsistence fish the end of the salmon run in Nondalton after the commercial fishery has ended Bristol Bay” (Holen 2009:107).
- Economic factors also make local fishing more attractive:
- “[Due to]...the high cost of freight and the increased salmon prices, some residents who fished commercially in Bristol Bay said they no longer brought some of the harvest home to Nondalton. Instead, they said, they subsistence fished when they returned to the community, with some mentioning that they preferred the taste of salmon harvested in Sixmile Lake to that of salmon harvested in Bristol Bay” (Fall 2010:69).
- 377 Many sources note that fish camps are composed of permanent and semi-permanent structures such as smokehouses, cabins and tents, bath houses, fish cutting tables, fish drying racks, and storage facilities – and that “bone racks,” used to dry fish to feed dog teams in the past, are still evident at some camps (Fall 2010). Ellanna and Balluta (1989[1]6:39) describe fall fish camps in this way:
- “Families lived in white-walled canvas tents and constructed steam baths, but there were no caches at these sites. Special A-shaped spruce pole fish racks with multiple rungs were constructed for air drying these spawned-out sockeye (referred to as nudelvegh) – a Dena’ina delicacy usually eaten with rendered bear fat.”
- 378 Fall 2010:171.
- 379 Fall 2010.
- 380 Holen 2009.
- 381 Melvin Trefon describes this ritual:
- “That’s the agreement we have with the salmon. As soon as they smell the q’esh (ggis) [leaves and peelings from wild celery], they say, ‘oh, our people is hungry, they are eating q’esh... it’s connected to the tradition that we were told that our people have a contract or ... from long ago when our people used to speak with the animals, like they said, we had a, there was a fish made a deal with our people saying that when we put that ggis peelings in the water they will immediately begin their trip from the ocean and rush, the way they say it is ‘hurry up they’re eating green stuff their hungry... so it’s just like they run to us up the river from the ocean, from that scent, from the ggis we throw in the water” (MT in Stickman et al. 2003: 48-49).
- Darlene Nolan has taught her children the importance of the q’esh ritual and describes how they gather wild celery from the mountains and throw it into the lake:
- “We get q’esh from up the mountain and after we eat it, we take the celery and throw it into the lake and we tell the salmon that it’s green already and we need for you to come. We don’t want to eat greens, we want to eat fish. And I tell them and I say a prayer” (Stickman et al. 2003:48).
- 382 Various sources suggest that the person who caught the first salmon cooks the fish and shares it in the context of a potlatch (e.g., Ellanna and Balluta 1989: [1]6). The practice is widespread among Dena’ina communities. Osgood described this ceremony as it was celebrated by the Upper Inlet Dena’ina in his report published in 1937:
- “The Dena’ina First Salmon Ceremony, primarily observed in the Upper Inlet area, was a particularly important event held to honor the first king salmon harvested each spring. The fish were spread on fresh grass. People took a sweat bath, dressed in their best clothes, painted their faces, and decorated their hair. Then they cleaned and cooked the salmon without breaking the backbones and returned the entrails to the water” (Osgood 1937:148-19).
- 383 In Stickman et al. 2003:47.
- 384 In Stickman et al. 2003:47.
- 385 Young adults are most often cited as absent from fish camps, in part “because they were attending formal camps, such as math camp, Bible camp, or culture camp, during fishing season.... Some older youth worked during the summer as well. ...[Y]ounger children participated by watching and asking question, as well as helping” (Fall et al. 2010:86). Many argue that the small number of youth and young adults at fish camp is not due to disinterest, but rather increased seasonal employment and alternate cultural, academic, and religious activities scheduled during the same summer months as the salmon harvest (Holen 2009; Fall et al. 2010:175).
- 386 In Evanoff and Ravenmoon 2013.
- 387 Gaul 2007.
- 388 Fall et al. 2006: 175-76.
- 389 Ellanna and Balluta 1992:27.
- 390 “Freshwater fish were important seasonally in the overall economy of the inland Dena’ina. ...particularly in the spring when smoked sockeye from the previous summer’s cache was depleted” (Ellanna and Balluta 1989[2]8:13-14). In Nondalton, salmon accounts for 65% of the subsistence diet, while freshwater fish account for just 15% (Stickman et al. 2003a:28). The Bristol Bay Board of Fish determined that approximately “250,000 pounds (in usable weight; about 41 pounds per person) of fishes other than salmon is the amount necessary to provide for these [customary and traditional] uses” (Fall et al. 2009:8).
- 391 There are biological distinctions between Dolly Varden and Arctic char, though the term “Dolly Varden” has been applied to both (Krieg 2005: 59). Dolly Varden migrate from freshwater streams from April to June and then to summer feeding areas in salt water, returning to freshwater in August and September. According to a Nondalton elder, they are best harvested in summer or early spring, around March (Krieg 2005). He writes, “Dolly Varden can move between the two Tazimina lakes, but waterfalls block access to Lake Clark. Kijik Lake has an outlet running to Lake Clark, but Dolly Varden rarely use it” (Krieg 2005:64).
- 392 Fall et al. 2009; Fall et al. 2006; Krieg 2005; Stickman et al. 2003; Ellanna and Balluta 1992 and 1989. Dena’ina’s classification of freshwater fish species varies slightly from the Western scientific nomenclature. While the Dena’ina language distinguishes like species, fish are often grouped together and referenced in relation to seasonal and geographic availability. For example, the term “whitefish,” is an encompassing term often used to refer to q’untuq (humpback whitefish), telay (round whitefish) and “least cisco.” An elder from Nondalton questioned the scientific nomenclature, saying “he wasn’t familiar with the distinction between broad, lake whitefish and humpback whitefish. The local telay have a humpback” (Krieg 2005:85). This suggests local taxonomies of fish that may warrant further investigation and documentation.
- 393 Krieg 2005.
- 394 Stickman et al. 2003.
- 395 *Salvelinus fontinalis* is known as “brook trout” in the communities of Iguigug, Kokhanok and Iliamna, and as “mountain trout” in Nondalton (Krieg 2005: 79).
- 396 Krieg 2005:70.
- 397 Krieg 2005:80. “A Nondalton elder called mountain trout dghili chuna and said mountain trout look similar to Dolly Varden, grow to about eight inches long, about five inches on average, and were in creeks in the mountains” (Krieg 2005:79).
- 398 Behnke 1982:40.
- 399 Stickman et al. 2003:52.
- 400 Fall 2010: 140.
- 401 Ellanna and Balluta 1989[1]:1:35.
- 402 Krieg 2005: 42.
- 403 Krieg 2005:42.
- 404 Fall et al. 2006; Morris 1986; Behnke 1982. Fishing on Sixmile Lake begins after the lake freezes in late October or early November (Fall et al. 2006; Behnke 1982). In February and March of 1981, for example, “many people spent hours fishing [for grayling, lake trout, whitefish, dolly varden and rainbow trout] through the ice in front of the village [of Nondalton] and by the mouth of the Tazimina River” (Behnke 1982:30). Sixmile Lake continues to be a heavily utilized fishing location during the winter. Northern pike are often caught here as they lay in the “deep, slow moving waters of larger rivers or in deeper lakes” (Krieg 2005:48). Fall (2010:141) reported that on March 29, 2008, Nondalton residents Clyde and Valerie traveled via snowmachine to the ‘Old Village’ (Old Nondalton located on Sixmile Lake northeast of Nondalton), where they ice-fished for Northern pike through the ice.
- 405 “Nondalton residents used the entire lake, especially in winter when ice fishing is a popular activity. They also fished in the Newhalen River as far south as Petrof Falls and north on Lake Clark, especially in Chulitna Bay” (Fall et al. 2006:171).
- 406 Krieg 2005:50.
- 407 Other researchers have documented this shift: “an elder [from Nondalton] said that when there were a lot of dogs in the community, large quantities of suckers were harvested with a seine” (Krieg 2005:45). Grayling was also once harvested in greater quantities for this purpose. One Nondalton resident recalls that “years ago ... his mother cleaning and drying grayling for dog food. It was harvested in the summertime by women, salted, and smoked in small quantities of 15 or so” (Krieg 2005:35).
- 408 Fall 2010.
- 409 Krieg 2005:87.
- 410 During the spring, Lake Clark is clear, but as annual temperatures rise, glaciers surround the lake melt, depositing layers of silt into the lake, decreasing visibility. Traditional fishing practices reflect this seasonal variation, moving with the fish as they migrate from the north side of the lake to the south:
- “Glaciers around Lake Clark bring a lot of silt into the lake. In the spring the lake is clear. When the weather warms, silt is deposited in the northern part of the lake. Gradually the silt line, visible at the edge of the lake, moves south and the lake becomes less clear. Mid July the silt reaches Port Alsworth, and the water becomes emerald green. The silt continues to move through the lake until late September. Fishing activity moves with the fish from north to south” (Krieg 2005:67).
- 411 During the springtime, usually in May, Dena’ina families stayed on Sixmile to harvest lake trout, burbot, and suckers, using gillnets (Behnke 1982). Some stayed at fish camps a short distance away from Nondalton. In fact, Ada Trefon was born at fish camp in 1963 at a site called Q’estsiq (“lake outlet”), the outlet of Sixmile Lake (AT).
- 412 Ellanna and Balluta 1992:140, 145.
- 413 In Stickman et al. 2003: 49.
- 414 In Fall et al. 2006:179.
- 415 Krieg 2005:83.
- 416 For example, during the fall and spring of Mary Hobson’s youth, her family would camp at Nizdlu Vena (‘islands are there lake’) (MH 1986). Clara Trefon remembers fishing for trout near Lower and Upper Talarik Creek, staying, “It’s good trout fishing there too, Lower and Upper Talarik Creek. Really good fishing” (CT). Mary Hobson would harvest suckers, whitefish, and Northern pike at a camp on the Little River. The suckers were reserved as dog food (MH), she said: “In the springtime we go up the Little River, little fish camp was up there and put up the suckers, whitefish, pike. That’s everything; put it up” (MH 1998). And when Annie Delkettie was a young girl, she and her parents would go to their spring camp “in Mulchatna and at Nusdnigi Q’aghdeg” (AD 1986). According to elders who spoke with Behnke (1982:31), there were a number of families that would travel by boat from Nondalton to the Snowshoe Bay area of Lake Clark to camp once May arrived. Also, “a Nondalton resident explained that many small grayling were caught near spawning areas [in Lake Clark] in the spring. This is also when the lake is more shallow” (Krieg 2005: 32).
- 417 As observed by Behnke (1982:31), “In late May and early June three or four Nondalton families camped in the Chulitna Bay area about twenty miles from the village. They hunted muskrat, duck and put out nets for pike.”

- 418 Fall 2010:140.
- 419 Fall et al. 2006:182.
- 420 The Wassallies were among the families that traveled to Pickerel Lake to set up spring fish camp. When Albert Wassallie was just a child, he and his family camped there in April or May, fishing for grayling:
- “We used to camp there a lot too, my dad and mom and sisters. ... There’s grayling comes there, April, May. Last part of April. The whole village goes there to get grayling. There’s so much grayling there’s enough for everybody. ... I remember my dad and I we got two thousand grayling in one night. ... We just use a little short net. Just a little tiny creek just full! Now they don’t even do that now. They don’t even get those no more. I don’t know. Everything’s changing” (AW 1985).
- Alex Balluta remembered going to Chulitna Bay and Indian Point with his family for spring fish camp: “Spring camp is mouth of Chulitna [#449, Ch’alitnu Hdakaq] around Indian Point [#451, Yusdi Ghuyi], around Chulitna Bay” (AXB 1986). Only in later years, from May until June, he and his wife went to the spring camp around south Pickerel Lake (Vata’esluh Vena) to fish for trout.
- 421 Krieg 2005:39.
- 422 Krieg 2005:55-56.
- 423 Describing the use of medicinal plants by Dena’ina families during his visit in the 1930s, Osgood observed that “cures are said to have been effected by the external and internal application of certain medicinal plants” (Osgood 1933:706).
- 424 Gaul 2007:103.
- 425 Fagan 2008:106.
- 426 Boraas 2013; Ellanna and Balluta 1989[1]1; Morris 1986.
- 427 Fagan 2008:106.
- 428 Kari 1997; Morris 1986.
- 429 Fall et al. 2006.
- 430 Johnson et al. 1997:347-348.
- 431 In Fall 2006:176.
- 432 Ellanna and Balluta 1989[1].
- 433 Fall et al. 2006:176.
- 434 Townsend 1970; Morris 1986.
- 435 Behnke 1982; Morris 1986.
- 436 Fall et al. 2006:175.
- 437 Fall et al. 2006: 71; Fall 2010:147.
- 438 Ellanna and Balluta 1989[1]1; Townsend 1970.
- 439 For example, Gladys Evanoff remembers that she “used to eat the sap in the rhubarb it’s like sweet and they use that too like for tea I guess” (GE). A few sources mention qiala as a plant harvested for its tuber, which is cooked and eaten. Mary Hobson remembers finding qiala on the beach, washing the tubers, and cooking them in a frying pan: “...and after that we walked on the beach. Qiala. That’s a good one. And we pick it big. This big [Qiala?]. That’s when you can wash it and fry it like a potato in a frying pan. They’re really good. ... A root, yeah. Call it Qiala” (MH 1998).
- For reference: in 2004, 32% of Nondalton households reportedly harvested wild plants other than berries (Fall et al. 2006: 170). As noted in Fall et al. (2006:174), “In addition to berries, residents of Nondalton harvested 346 pounds (2 pounds per person) of other wild plants, including wild greens and mushrooms, in the area immediately around Nondalton and on the islands in Iliamna Lake including Flat Island.” As this suggests, some households are harvesting and sharing with other households, and the use of such plant foods is unevenly distributed within the community.
- 440 AW 2010:16.
- 441 In Fall et al. 2006:175.
- 442 In Fall et al. 2006:175-76.
- 443 Fall et al. 2006.
- 444 In Fall et al. 2006:175-76.
- 445 In Branson 2014:216.
- 446 As Boraas (2013:106) notes of Dena’ina generally,
- “Certain mountain plants, such as false hellebore, were thought to have greater healing efficacy than their lowland counterparts, and pilgrimages to the mountains were undertaken to collect them and other medicinal plants.”
- 447 The plants identified in this section are similar to those identified in other studies of Native community plant use in the region, however, suggesting that these are to some degree the cultural “keystone” species. For example, a study of Iliamna region residents generally in the 1980s identified the use of the following plants: spruce, birch, alder, willow, cottonwood, aspen, blueberry, salmonberry, wild rose, black currant, red currant, wild rice, highbush cranberry, nagoonberry, lowbush cranberry, wild onion, wild rhubarb, firewood, wild spinach, and blackberry (crowberry) (Morris 1986:48).
- 448 Ellanna and Balluta 1989[1]:29.
- 449 While helpful in some respects, the plant lists produced in past subsistence studies, such as those by ADF&G, are typically incomplete. Those interested in more detail might consider consulting with inland Dena’ina elders, women in particular, or written works that have systematically sought to document their knowledge, especially P.R. Kari’s *Tanaina Plantlore* (Kari 2003).
- 450 There are other examples from throughout inland Dena’ina traditional territory. Grindstones, or tuchila, were used to sharpen tools (Bobby 2010:52). Blades were made from rocks in order to scrape hides, and to use as axe heads and arrowheads. Vonga Bobby explained the term tsaken, a particular stone that is taken from the Stony River to make implements, saying:
- “In the Stony River they call **Yeq Tsana**, that’s a rock in the middle of the river, behind that, ... there is a white rock and a black rock. They call that **K’inq’ena Qaeh**, means ‘dentalia’s home,’ or ‘dentalia’s village’. There is what they call tsaken, like a rock form. That’s the way it looks, like it’s figured. The white rock and the black rock are mixed. You can only gather those rocks. They used to make things out of those rocks... That’s where they used to get rocks from for scraping hides, making axe, and making arrowheads” (Bobby, V. 2010:89).
- Using similar terms, Kari and Kari (1982:62) describe the source of a rock known as tl’al as an area above Qeghnilen: “[A] black rock, perhaps flint, is found above Qeghnilen on the Stony River at a place called Yeq Tsana ‘cormorant cliff.’ Tl’al, used for axeheads and other tools in earlier times, was obtained here in winter when the river was frozen, for it was difficult to reach in summer because of the canyon’s swift waters.” It is likely that such gathering also occurred along the riverbanks of the Chulitna and in other portions of the study area.
- 451 Bobby 2010:52.
- 452 Ellanna and Balluta 1989[1]:48.
- 453 These points are increasingly being applied as part of a revision review of Alaska subsistence and its significance to Native communities. As Brown and Burch (1992: 203-205) write:
- “(The) application of neoclassical economic methods is complicated by the complex mixture of market and traditional transactions used to exchange wildlife products, by the laws that currently govern Alaskan wildlife harvest and exchange, and by the cultural importance of wildlife harvest and exchange to many subsistence hunters.”
- Similarly, during a 2013 subsistence study, Shaw (2013:26) observed:
- “Thus, while the import of Western goods and values made, for some, subsistence practices less economically essential, it simultaneously increased the political and cultural currency of subsistence as a critical element in the survival and sovereignty of Alaska’s indigenous societies. Thus, subsistence can be seen as part of the dynamic process of constructing sociopolitical and personal networks of identity and agency.”
- 454 Ellanna and Balluta (1989[2]:9:6) use these terms to demonstrate that conventional economic models do not fit the Nondalton subsistence economy:
- “[I]t is assumed that the intent of rational economic behavior is to maximize returns—that is, to get the most of a desired product by the least expenditure of effort. However, it is mistakenly assumed that desired products take the form of material wealth—usually interpreted as commercial western foods when such are available. This definition of wealth, by its very nature, excludes traditional values and non-material goods such as social status or group solidarity.”
- 455 Ellanna and Balluta 1989[2]9:71.
- 456 This critique, sometimes applied to Native corporations, also is applied to people who move to Nondalton from elsewhere and begin to promote economic development. Clara Trefon, for example, notes,
- “Well you know we have some of the people in our population who come from the general population and they’re not Dena’ina and they’re not from Nondalton; they move to Nondalton you know, and don’t know the history or not really tied to the land so they’re looking at economics in this area, they’re not looking at our way of life or what the people believe in” (CT).
- 457 As Cook (2004:15) writes:
- “In addition to vegetation, other features and factors may influence a species’ distribution, including topography, soil types, snow cover, availability of food or pathogens, and/or the presence of other important features such as water bodies, rocks, and ground litter. The unique biogeographic and evolutionary history of each species also influences its current distribution. Because Alaska’s habitats have changed markedly since the last glaciation, the current distribution of nearly all species must be viewed within the dynamic geologic and climatic histories of these high latitudes.”
- 458 This theme is a recurring one in many studies of Dena’ina land and resource use. Behnke, for example, documented one such episode:
- “A warm winter in 1976 meant there was little snow cover, so that snowmachines could not be used for trapping or moose hunting most of the winter. Lake Clark did not freeze and boats were used for trapping in that area in January and February” (Behnke 1982:28).
- 459 Evanoff and Ravenmoon 2013; Ellanna and Balluta 1989[1]6; Gaul 2007.
- 460 Ellanna and Balluta 1989[1]1:49.
- 461 At times, these shifts have caused great hardship for Dena’ina hunters who must quickly adapt to changing conditions in order to supply an extended Dena’ina community with much needed sustenance:
- “One local resident relates a story about a time when there were few animals in the area to support people. ‘Long time ago there was hardly any moose. They talked about going way up, traveling way up that way (he points northwest towards the Mulchatna Hills) and spending a couple of days looking for moose. And they actually talk about finding starving families that didn’t have anything to eat on account of there was no moose or caribou around” (Holen et al. 2005:49).
- 462 From 1910 through 1916, the salmon largely failed to return to the rivers and streams in the study area. Teachers at Old Iliamna reported conditions of starvation in the Lake Iliamna and Lake Clark areas during this period (Hornberger 1986[4]; Jacobs 1995).
- 463 For instance, in 1926 the salmon failed to return in sufficient numbers. As a result, Gabriel Trefon led his family 70 miles north to Telaquana Lake (Branson 2014). A Nondalton resident in Fall et al. (2006:182) remarked upon this journey:
- “Well I heard one time there was no fish around here one summer and they went all the way to Telaquana and made camp and that’s where they got their fish for the winter. I think that fish came from Mulchatna River, there was no fish around here, that’s what Agnes

(Cusma) said. ...Telaquana, they would have to walk up from Kijik, up Telaquana trail. Agnes said they had camp up there, smoke house, cache, everything.”

Here they found salmon enough to feed his family and their dogs for the season. In times of extreme crisis some even traveled as far as the lower Kvichak Basin or the ocean in search of marine resources. According to Rose Hedlund: “They’d go into the lake, saltwater side. Every spring just about every family that could travel went saltwater side” (RH 1985).

Traveling long distances with a dog team during the winter required a consideration of resources used relative to resources gained to ensure a viable undertaking. In 1910, Hannah Breece, described winter conditions, saying, “The white men who came through said, ‘Let them hunt! They are a lazy lot!’ But these men did not understand how bad times had become. ... A hunt meant a round-trip journey of about 250 miles, and food for dogs and men on the journey” (in Jacobs 1995:143). Today, these adaptive strategies must account for fuel costs and the risks of failure. As elders explained to Fall et al. (2010:162),

“Community residents said they had to decide whether to travel, all by ATV or snowmachine, the long distances...to the Nushagak River drainage or to Lime Village, for example, when relatives or friends from those communities informed them of the presence of caribou. Since the increase in gasoline prices, many community residents have said that the costs are too great to invest in what might be an unsuccessful hunt.”

464 Rose Hedlund remembers a summer when her family set up nets in preparation of the returning salmon run, which failed to appear in significant numbers. Instead, to their surprise, their nets became laden with Dolly Varden, or “trout” as Rose refers to them:

“In my time, I’ve seen one summer the fish didn’t come hardly. We gotten bundles and that 400 fish for a whole summer... the next time to pick it they had hundreds of Dollys like this in it. So where she lives along that beach, it’s a long beach, they’d seine these with the net and they’d get hundreds. So we filled our smokehouse with these great big trouts. ...This was in July. ... These trouts came ashore, these big ones. ...The net sunk. ...I was about 10 years old then. ...There was no salmon and the trouts came ashore [just that one year]” (RH 1985).

Often, when subsistence fishers experience a late salmon run, they compensate by leaving nets in the water longer, intensifying efforts to catch non-salmon species over the winter and increasing moose and caribou harvests or some combination of these strategies (Fall et al. 2009).

465 When terrestrial game and salmon are both scarce or absent, freshwater fish species become the primary source of fresh food (five species of whitefish, arctic grayling, northern pike, rainbow and lake trout, Dolly Varden, two species of char, blackfish, burbot, least cisco, stickleback and long nose sucker; Ellanna and Balluta 1989[1]). According to Krieg (2005), blackfish, suckers, sticklebacks, and “bullheads,” a species of sculpin—fish not usually identified as primary food sources, become particularly important in times of famine:

“An elder couple in Nondalton said blackfish and sucker are always available, and people ate them when they had no other

food. These species were described as starvation food, along with sticklebacks and ‘bullheads,’ probably referring to a species of sculpin” (Krieg 2005:40).

466 Once a staple resource for food as well as materials, ground squirrels are today considered a “starvation food” by some inland Dena’ina youth—a resource only palatable when nothing else is available (Shaw 2013).

467 Hinting at this, one Nondalton resident recalls that they used to preserve beaver meat in brine “then soak it out and eat it, it was good, people don’t do that anymore but it might come to that some day” (Fall et al. 2006:182).

468 Ellanna and Balluta (1989[2]8) attribute this characteristic to the historical experience of resource scarcity:

“The emphasis of the inland Dena’ina on particular values—hard work, the absence of laziness, ‘always having enough,’ ‘never being without,’ caring for what one has, generosity in hard times, and others—in part can be explained by the reiterated fear of starvation and overall individual and group deprivation” (Ellanna and Balluta 1989[2]8:66).

469 Holen 2009.

470 For example, while tracking big game, hunters may also set traps, or gather berries and other plant materials along the way:

“Indigenous economies have tended to involve the simultaneous and proximal use of multiple resources on a subsistence basis, rather than the intensive, isolated, single resource use that characterizes industrial capitalist societies. In other words, the way that Indigenous people live off the land often means they need to understand the way that the different plants and animals interrelate, how the ecosystem works as a whole, and how they can use that system to sustain themselves” (Menzies and Butler 2005:5).

471 For example, trappers have been noted to alternate between several locations throughout the winter:

“Alternate trapping areas are necessary for Stony River trappers because of variability in the game population, traveling, and weather conditions, and a person’s social and economic situation, both within a season and from year to year. This traditional practice of alternating trapping areas also appears significant in helping to maintain furbearer populations in the area” (Kari 1985:99-101).

472 In a study by Holen (2008:9), harvest efforts were examined in relation to resource availability, researchers concluded that:

“[O]ne year of harvest data should not be viewed as necessarily representing adequate or desirable levels of harvests. ...For example, when abundance of salmon or caribou dropped, these resources did not necessarily diminish in importance to the community. Rather, harvest effort generally increased when a resource was scarce, reflecting the continuing significance of these resources to the community’s economy and way of life.”

473 Many residents observe that in the “summertime water is warmer and in the wintertime it is not cold like it used to be, and that’s why we’re losing our berries and our fish” (in Fall et al. 2006:184).

474 Shaw 2013; Fall et al. 2010, 2009; Ellanna and Balluta 1989.

475 Hobson 2010:31.

476 Evanoff and Ravenmoon 2013.

477 As Karen Gaul observed,

“For Dena’ina in the present as well as in the past, participating in the work of hunting and gathering or of maintaining the household and equipment, means sharing work. And this participation is how children of all ages learn the skills necessary for processing meat or fish, storing and preparing foods, and using the equipment necessary for work inside or outside the home” (Gaul 2007:128).

478 Ellanna and Balluta 1989[1]7:20.

479 Agnes Cusma offered the example of her father as a man of integrity, saying, “My dad was always a good provider. Part of the time, he continued hunting, trapping, and fishing with his brother or with my mother after I was old enough to watch the older children. He never stopped going to Telaquana for trapping, as this was the area he knew best” (in Ellanna and Balluta 1992:129).

480 Ellanna and Balluta speak of one elder, for example, who was widely admired for leaving de facto retirement and supplying the community with beaver pelts and meat:

“Although in the 1970s and 1980s, most Nondalton families were not spending entire winters or springs at beaver camps, one elder wished to relive this part of the annual cycle while his health was still good enough to do so alone. In 1971, he flew to the Chilchitna River with his tent, snowshoes, traps and snares, a firearm, a saw, and a few food items, like coffee, sugar, and tea. ... In April, he sent for his sister’s son, and they took home a full load of beaver pelts and meat to the village. In the 1980s, this event was recalled and admired by inland Dena’ina of all ages” (Ellanna and Balluta 1992:172).

481 Shaw 2013:87.

482 Gaul 2007.

483 On this point, Clarence Delkettie adds,

“My dad said a black bear’s a heck of a lot more dangerous than a brown bear. A brown bear, when you come up to a brown bear—I did this once—I mean, he’ll jump up on two legs and raise his arms like that and give you a big target. And it think he do that just to try to scare you off and stuff. A black bear wouldn’t do that, he’ll come at you like a wolf on all fours and run right up to you and get at you. He wouldn’t jump up on two legs and show his body like that, a brown bear would. My dad said the springtime too, springtime the black bears get real dangerous too because when they’re mating in springtime, they get protective over each other. And usually if you see one, there’s another not too far away. ... They’re faster on their feet than a brown bear. That’s why they survive out there because brown bears couldn’t catch them

unless they’re at a close distance. Most of the time a black bear will outrun a brown bear and they couldn’t get a hold of him. ...

“Hunting-wise, you got to know about the animals you know like hunting you got to know about making noise when you’re walking through the brush and stuff. If you’re you know hike out into the wilderness or even hunt, because if you don’t know about any of the bears that’s mating the springtime and you shoot one down and you’re not ready for another coming out to get you and your going to be in trouble. Or you’re making noise when you’re walking through there, because you can walk up to a moose kill and a brown bear could get you. If you don’t know things like that, your people could get killed just by being stupid and not knowing how the animals will react when you’re traveling through the wilderness and stuff—through the wilderness and you know going about. You could get killed pretty quick by a black bear or brown bear if you don’t know how to travel around on foot. I’m only talking about on foot because you know, if you’re walking and stuff and you’re like, the wind is in the wrong direction, you couldn’t—the bear couldn’t smell you when you walk up on him on the kill. You don’t have a gun ready, or if you did have a gun and you’re not fast enough and the bear charges, that’s it!... let the animals know that they’re around. So you make a lot of noise when you’re in the brush, when you’re walking. And when you hunt in the springtime a black bear, you gotta always remember there’s probably another one around if you shoot one” (CD).

484 Individuals in Nondalton were asked in a 2013 study by Shaw to rate the importance of transmission of traditional ecological knowledge through participation in subsistence practices. In response, “a younger male...replied that this is ‘very important’ because ‘if you’re trapped in the woods [and] you don’t know how to make a fire or go after moose or anything, you’ll die” (Shaw 2013:102).

485 Shaw 2013.

486 In the past, chiefs played a central role in organized cultural transmission. As reported in past studies, based on Dena’ina oral tradition,

“The chiefs also spent much time passing traditional lore and environmental knowledge from one generation to the next. As with every hunter-gatherer society, success in the food quest depended on intelligence gathered by contacts with neighboring bands, by individual hunters, and between families” (Fagan 2008:110).

