The background of the cover features a repeating pattern of salmon fish swimming in a river, interspersed with various autumn leaves in shades of red, orange, and yellow. The overall color palette is warm and natural, reflecting the Alaskan theme.

# **Traditional Knowledge and Fishing Practices of the Ahtna of the Copper River, Alaska**

**Technical Paper No. 270**

**William E. Simeone and James Kari**

**in collaboration with the  
Copper River Native Association  
Cheesh Na' Tribal Council  
Chitina Tribal Council**

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**Alaska Department of Fish and Game  
Division of Subsistence  
Juneau, Alaska  
July 2002**

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## FINAL REPORT SUMMARY PAGE



Title: Copper River Subsistence Evaluation 2000 and Traditional Knowledge Project

Study Number: FIS 00-040

Investigator(s)/Affiliation(s): William E. Simeone/Alaska Department of Fish and Game, Division of Subsistence, James Kari, Fairbanks, Alaska.

Geographic Area: Region (Copper River)

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Abstract: For over 1,000 years the Ahtna Athabascan people have fished for salmon in the Copper River and its tributaries. During that time they have gained a considerable knowledge of salmon. This report provides an overview of that knowledge including information on the Ahtna taxonomy of salmon and other fish, salmon life history, factors influencing the movement of salmon, harvesting devices and the preparation of fish, the traditional management system, and legends and stories about salmon.

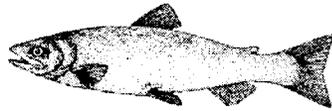
Key Words: Traditional knowledge, subsistence salmon fishing, Ahtna Athabascan language, culture, and history, Copper River Alaska, harvesting and processing techniques, salmon life history.

Project Data: Data for this study consist of tapes and transcripts of interviews conducted with Ahtna elders in the Ahtna language. These tapes and transcripts have been archived with the Alaska Department of Fish and Game, Division of Subsistence, 333 Raspberry Road, Anchorage, Alaska 99518.

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## EXECUTIVE SUMMARY



This report summarizes some aspects of Ahtna Athabascan traditional knowledge of salmon. The Ahtna are an Athabascan-speaking people who inhabit the Copper River Basin and one of 11 different Athabascan groups that live in Alaska. Salmon (*Oncorhynchus sp.*) have been critical to their economic and cultural survival for at least 1000 years. Three species of salmon spawn and rear in the Copper River: sockeye salmon (*Oncorhynchus nerka*), chinook salmon (*Oncorhynchus tshawytscha*), and coho salmon (*Oncorhynchus kisutch*) but without question it is the sockeye that were traditionally the most important to the Ahtna. Elder Frank Stickwan spoke of the importance of salmon and how people congregated all along the entire length of the upper Copper River, just as they congregate near the highway today. He said, "Used to be living for fish, all the way up the river, just like a highway [is] today, people living just like that." Within the basin all contemporary Ahtna communities are located near traditional fishing sites on the Copper River. Bisected by the Glenn and Richardson Highways, the Copper River basin is accessible to the major population centers of Alaska. Accessibility to the tremendous salmon runs, in addition to the fact that the basin is home to the Ahtna people, makes the Copper River unique in Alaska.

The information collected for this report falls into the broad category of traditional ecological knowledge or TEK, which has been defined as the:

...knowledge base acquired by indigenous and local peoples over many hundred of years through direct contact with the environment. It includes an intimate and detailed knowledge of plants, animals, and natural phenomena, the development and use of appropriate technologies for hunting, fishing and trapping, agriculture and forestry, and a holistic knowledge, or "world view" which parallels the scientific discipline of ecology (Inglis 1993:vi).

Ahtna knowledge of salmon easily conforms to this definition. The elders interviewed for this report have long-interacted with their environment and gained considerable detailed knowledge of salmon. Much of the traditional knowledge presented in this report could be described as basic biological knowledge.



The Ahtna have recognized and named all fourteen species of fish found in Copper River Basin, and cataloged by the Alaska Department of Fish & Game species inventory. They have also named 21 different salmon runs or stocks on the upper Copper River. Each stock is named for a side stream or place, and Ahtna say that they can discern the differences among fish from the various locations. These named runs are comparable to the “salmon stocks” recognized by the Alaska Department of Fish and Game. The most well-known stock, known to all Ahtna and to biologists, is the *natael luugu*’ or ‘roasted salmon fish,’ a large sockeye bound for Tanada Creek and Tanada Lake. The largest and most well known chinook salmon is the *kentsiina*’i or *kentsii luugge*’, the ‘spruce bark canoe salmon’ of the Tonsina River.

Traditionally salmon were a critical resource and major food staple for the Ahtna because they were relatively abundant, were predictable in their arrival, and arrived at a point in the annual cycle when food was scarce. The Ahtna therefore developed three strategies to control when and where the harvest of salmon took place, the amount harvested, and the size and condition of the fish caught. These strategies included: 1) regulating access to the fishery through a system of territories or districts, 2) maintaining a conservation imperative to insure a sustained yield; and 3) timing their effort to maximize the harvest. Ancillary to timing the harvest, Ahtna created highly efficient and effective technologies to harvest, process, and store relatively large numbers of salmon.

There are fifteen documented fishing devices or sets of devices attested in the larger Ahtna language area. The most widely used was the dip net, which was manned from a platform that extended out over the Copper River. Dip nets were most commonly used to catch sockeye salmon processed to make the staple *ba*’ or dried fish. The Ahtna also caught salmon using weirs, basket traps, gaffs, spears, and snares. Following the introduction of the fish wheel in the first decade of the 20<sup>th</sup> century most of these methods were discontinued.

Processing of salmon was done at the *saen hwnax*, the ‘summer house’ or ‘fish camp.’ Main fish camps used for processing and storing large quantities of salmon were located at strategic points along the main stem of the Copper River. Camps were often situated at or near permanent winter villages, which were frequently located near the mouths of tributary streams flowing into



the Copper River. Today most fish camps are located close to Ahtna villages, but many Ahtna have given up using fish camps as places to process and store their fish because of problems related to trespass and theft. Instead salmon are now processed and stored at people's homes located in their respective communities.

Catching salmon is relatively easy compared to the work involved in processing. Attention to fish processing is illustrated by the set of Ahtna nouns for special cuts of fish, by verb themes that are unique to processing, as well as the rich array of fish food products. In the Ahtna language, the primary salmon product is called *ba'*, a stem-word that refers to whole dried sockeye, that has been split, scored, and spread flat with spreader sticks and smoked just the right amount in the smokehouse on a baling pole. The importance of *ba'* is highlighted by the fact that the Ahtna have a system of storing and counting *ba'* in bales of forty or forty-two fish. The *ba' xael* or 'dry fish pack' was a basic unit of exchange, both for amassing and rationing a family's store of dry fish and as an item of barter.

In writing this report a major concern has been how to present Ahtna knowledge so that it can be fully appreciated by a wide audience including biologists, resource managers, and the Ahtna themselves. One of the most difficult aspects of cross-cultural communication is understanding and appreciating different styles of communication. In traditional Ahtna Athabascan culture narrative plays a key role in the transmission of knowledge. One objective of this report was to collect narratives about salmon and salmon fishing in the Ahtna language that would reflect both technical knowledge and a particular worldview. The narratives usually range over a wide set of topics and do not provide a series of discrete data, so in writing the report we dissected the narratives and organized them into discrete chapters on specific topics. But we also wanted to maintain the integrity of each narrative as much as possible so that the reader could get a sense of the logic of communication. The central narrative of this report is that presented by Katie John of Mentasta on fishing in Tanada Creek, a small tributary of the upper Copper River. The Tanada Creek fishery has been documented several times and with Katie John's narrative it becomes the single best-documented Ahtna fishing site.



In addition to presenting technical data we also present a cultural context including information on Ahtna social and political organization, economy, and worldview or cosmology. Cosmology is the foundation of the knowledge system and provides a way for people to organize information gained from experience and observation, which is then used to form explanations and rules for living. For non-members of a culture, cosmology is often the most difficult area to understand and write about, but it is important because it can provide an alternative view of ecosystem and human environmental interrelations and offers a way for understanding what people value in their environment. The basis of traditional Ahtna cosmology is found in the *Yenida'a* stories or legends of the ancient past, when animals and people could talk to each other. There are two *yenida'a* stories that center around salmon. Like all stories, these were told both for entertainment and instruction, much the same as Bible stories or Grimm's Fairy Tales and were told mostly in the winter months when the nights were long. From these stories children were supposed to learn the rules that governed their actions and attitudes toward one another, and toward the animals, fish and plants they lived on.



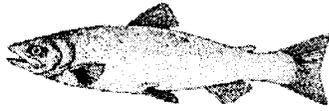
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## Chapter One INTRODUCTION



This report is the first of a two-part report on investigations of the Copper River subsistence salmon fishery conducted by the Division of Subsistence, Alaska Department of Fish and Game in collaboration with the Copper River Native Association, CheeshNa' Tribal Council, the Chitina Tribal Council and Dr. James Kari. Part one, presented here, includes information provided by Ahtna elders about their knowledge and use of salmon. Part two is a quantitative analysis of the fishery and includes data from a survey, conducted in the summer of 2000, of subsistence fishers in both the Glennallen and Chitina subdistricts of the upper Copper River.

The Ahtna are an Athabaskan-speaking people who inhabit the Copper River Basin. Aboriginally, they were hunters and fishermen who moved with the seasons. In the fall and winter Ahtna hunted big and small game and fished for resident species such as whitefish and grayling. In the summer they fished for salmon. Salmon (*Oncorhynchus sp.*), and especially sockeye salmon, have been critical to the Ahtna's economic and cultural survival for at least 1000 years (Workman 1976) and over that period of time the Ahtna have developed extensive knowledge of salmon. This report provides an overview of that knowledge.

Three species of salmon spawn and rear in the Copper River: sockeye salmon (*Oncorhynchus nerka*), chinook salmon (*Oncorhynchus tshawytscha*), and coho salmon (*Oncorhynchus kisutch*). Without question sockeye are the most important fish to the Ahtna, followed by Chinook and then coho salmon. Ahtna elder Frank Stickwan spoke of the importance of salmon and how people congregated all along the entire length of the upper Copper River, just as they congregate near the highway today. He said, "Used to be living for fish, all the way up the river, just like a highway [is] today, people living just like that." Today all but one of the modern Ahtna communities [Cantwell] is located close to the site of a traditional fish camp and winter village.

There are eight Ahtna villages with a population of approximately 727 people in 2000. Contemporary Ahtna communities include Mentasta, Chistochina, Gakona, Gulkana, Tazlina, Copper Center, Chitina and Cantwell. The major population centers are Glennallen and Copper

Center. The region is bisected by the Glenn and Richardson Highways, which make the Copper Basin accessible to the major population centers of Alaska. Figure 1-1 shows the major geographic features associated with the Copper River Basin.

The information collected for this report falls into the broad category of traditional ecological knowledge or TEK<sup>1</sup>, which has been defined as the:

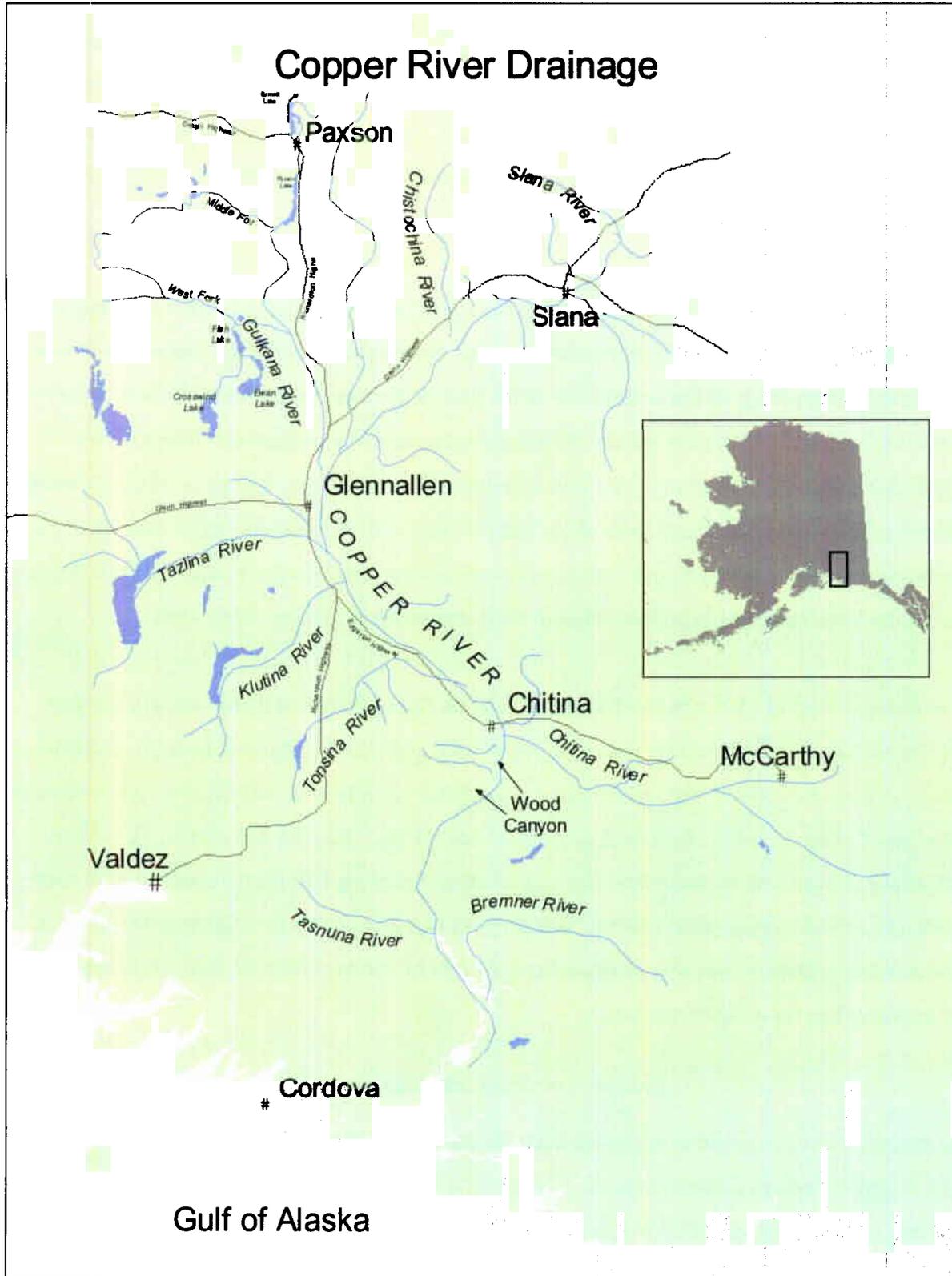
...knowledge base acquired by indigenous and local peoples over many hundred of years through direct contact with the environment. It includes an intimate and detailed knowledge of plants, animals, and natural phenomena, the development and use of appropriate technologies for hunting, fishing and trapping, agriculture and forestry, and a holistic knowledge, or “world view” which parallels the scientific discipline of ecology (Inglis 1993:vi).

Ahtna knowledge of salmon easily conforms to this definition. The elders interviewed for this report have long-interacted with their environment and gained considerable detailed knowledge of salmon. Over succeeding generations the Ahtna have developed appropriate technologies for harvesting salmon and have conducted these harvests within the framework of an ecologically focused worldview. Here the term ecological does not only refer to the natural environment but is used in a wider sense to include human/nature relationships.

The authors did not undertake this research to answer a specific question but to document and present, to managers and biologists and to future generations of Ahtna, the elders’ knowledge of salmon. In writing this report a major concern was how to present this information so that it would be useful to fisheries biologists, managers, and the Ahtna.

One of the most difficult aspects of cross-cultural communication is understanding and appreciating different styles of communication. In Ahtna culture narrative plays a key role in the transmission of knowledge. One objective of this project was to collect narratives about salmon and salmon fishing in the Ahtna language that would reflect both technical knowledge and a particular worldview. The narratives usually range over a wide set of topics and do not provide a series of discrete data. In writing the report we took the liberty of dissecting the narratives and organizing them into discrete chapters on specific topics. But we also wanted to maintain the

Figure 1-1, Copper River Drainage



integrity of each narrative as much as possible so that the reader could get a sense of the logic of communication. Chapters five and eight are devoted exclusively to Ahtna narratives and throughout the entire report we have made extensive use of interview excerpts and interlinear translations in order to support statements, illustrate key points, and let the elders have a significant voice. We also offer these narratives as a substantive contribution to the record on Ahtna language and culture.

In addition to presenting technical data the authors also wanted to present a cultural context including information on Ahtna social and political organization, economy, and worldview or cosmology. Cosmology is the foundation of the knowledge system and provides a way for people to organize information gained from experience and observation and then to form explanations and rules for living. For non-members of a culture, cosmology is often the most difficult area to understand and write about but it is important because it can provide an alternative view of ecosystem and human environmental interrelations. In addition, it offers a way for understanding what people value in their environment (Usher 2000: 188).

In an effort to define TEK a sharp distinction is often drawn between it and western science. Traditional knowledge is considered to be non-linear, qualitative, intuitive, holistic, and oral while western science is linear, quantitative, analytical, reductionist, and literate. However such distinctions obscure much about both systems of knowledge. Indeed, the Ahtna, like other indigenous groups, can be analytical and quantitative; counting fish is an important part of the traditional Ahtna management system. Adhering to this dichotomy also ignores the fact that contemporary Ahtna do not live isolated from the rest of the world but do have an understanding and appreciation for modern science.

#### *Research methods and data sources*

The project was a cooperative endeavor between the Alaska Department of Fish and Game (ADF&G) Division of Subsistence, the Copper River Native Association, CheeshNa' Tribal Council, and the Chitina Tribal Council. The U.S. Fish and Wildlife Service, Fisheries Information Service (FIS) provided the funding.

To help in the documentation of Ahtna traditional knowledge the Division of Subsistence worked with Dr. James Kari, a leading linguistic expert in the Ahtna language. Together the principal investigator and Dr. Kari conducted key respondent interviews with 11 Ahtna individuals identified as local experts by the Ahtna community at large. These included: Frank Billum of Chitina, Fred Ewan of Gulkana, Gene Henry of Dot Lake, Bell Joe of Chistochina, Katie John of Mentasta, Wilson Justin of Chistochina, Ben Neely of Gulkana, Virginia Pete of Tazlina, Frank Stickwan of Tazlina, and Andy Tyone of Gulkana. Those interviewed gained their expertise by living intensively off the land and most are still active fishers. All were fluent Ahtna speakers but comfortable with the English language so that interviews were conducted in a mixture of Ahtna and English. The interviews took place in the respondent's homes and were tape-recorded using a standard format cassette tape recorder. Most interviews were transcribed and the Ahtna portions translated by Dr. Kari. Expert Ahtna speakers Molly Galbreath and Virginia Pete, who have worked closely with Dr. Kari for the past 25 years, proofread the transcriptions. Respondents were offered an honorarium in recognition of their time. Interviews ranged in length from one to three hours. In addition to interviewing Ahtna elders, the authors held many informal conversations with ADF&G area biologist Tom Taube and he was also included in one of the interview sessions with elders in the village of Gulkana.

When the interview process began Dr. Kari and the principal investigator had a good working knowledge of Ahtna culture but little specific knowledge of salmon. As a general model for the investigation we used Kroeber and Barretts (1960) monograph *Fishing Among the Indians of Northwest California* and developed general fields of inquiry that included:

- the taxonomy of salmon and other fish
- knowledge of salmon life history
- factors influencing the movement of salmon
- harvest devices and the preparation of salmon
- the traditional Ahtna management system, and
- legends and stories about salmon.

The authors conducted both directed and semi-directed interviews but favored the latter because semi-directed interviews allowed us to collect a wider range of information. In addition, semi-directed interviews enabled the interviewees to discuss their understanding of the topics and

make connections between topics based on their own understanding rather than on questions drawn up in advance (cf. Huntington 1998:241).

Dr. Kari transcribed, translated and edited material he had previously collected including Katie John's narrative of fishing at Baltzulnetas. Her narrative is a cornerstone of our research and of the final report (see chapter 5). Katie's narrative is a classic ethnographic narrative in which she provides graphic detail on the preparation and work surrounding the fishery. The narrative also illustrates the deeper cultural values of the Ahtna food quest.

In addition to the interviews the authors conducted archival research and consulted both the ethnohistoric and ethnographic record. Archival research was conducted at the Valdez Museum using the journals of several participants in the gold rush of 1898. Our work built on the previous published and unpublished work of Constance West, Holly Reckord, Frederica de Laguna and Catharine McClellan.

### *Organization of the report*

The report is organized into nine chapters, including the introduction. Chapter Two deals with fish as a lexical domain and describes the Ahtna taxonomy of fish in general. Chapter Three describes Ahtna knowledge of salmon distribution, behavior and observed changes in habitat. The following chapter describes traditional Ahtna management practices and includes a discussion of traditional harvest quantities. Chapter Five is Katie John's narrative "Putting up Salmon at Baltzulnetas." In this narrative Katie talks about fishing in Tanada Creek when she was a child and provides detailed descriptions of the construction of the fish weir and traps, the rules associated with fishing, harvest levels, and the different salmon products that her family produced. Chapters Six and Seven are descriptions of salmon harvesting devices and the processing of salmon, respectively. Chapter Eight is devoted to several versions of Ahtna narratives, one about the origin of salmon and the other about the salmon boy or *Bac'its'aadi*. It is the salmon boy who informs the Ahtna how the salmon expect to be treated, thus insuring the runs for future generations. The last chapter provides a summary and conclusions.

## Chapter Two

# FISH AS A LEXICAL DOMAIN IN THE AHTNA LANGUAGE



### *Introduction*

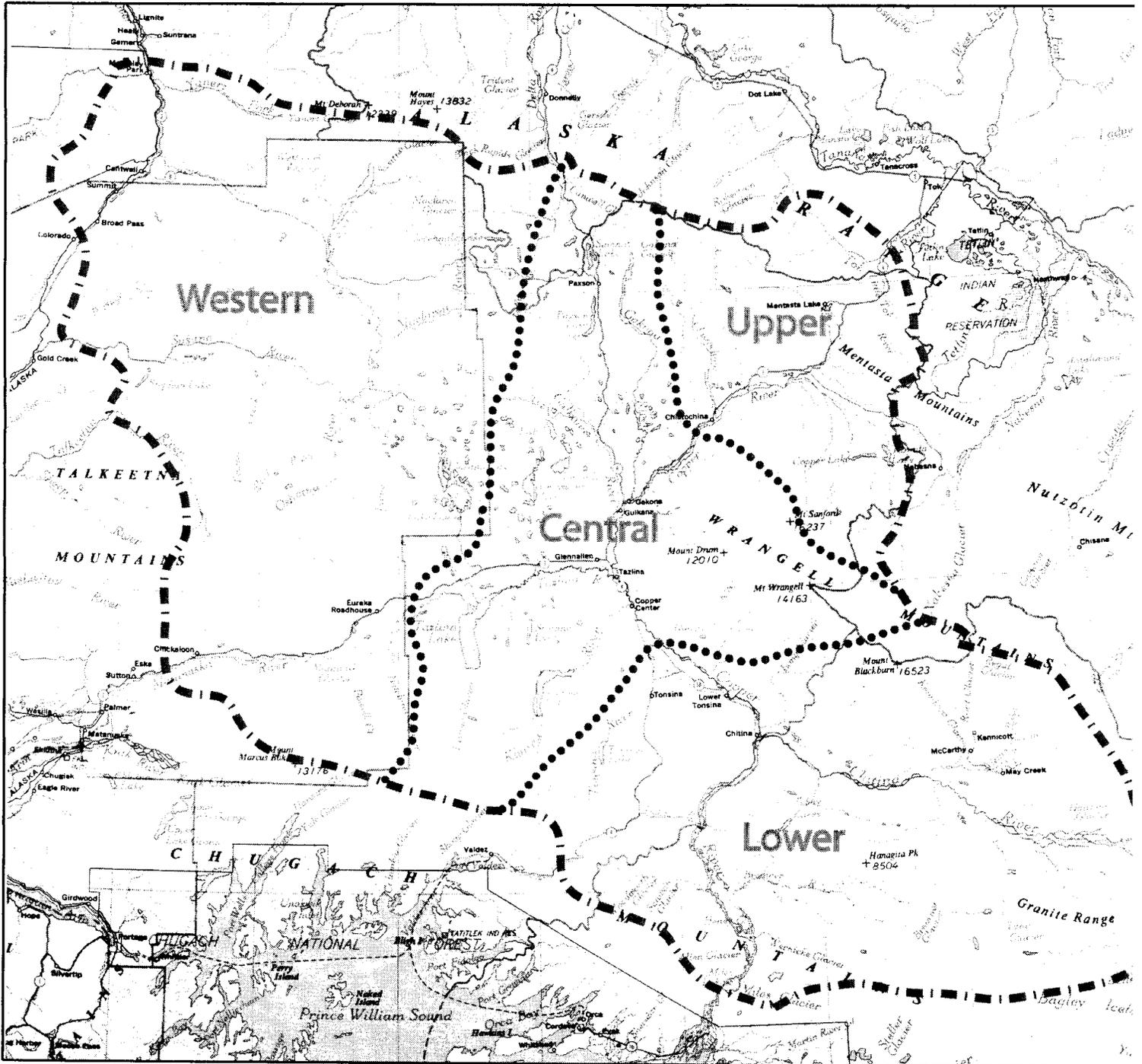
Throughout this study we emphasize the vocabulary in the Ahtna language that pertains to fish, particularly focusing on salmon terminology and the harvesting and processing of salmon. The degree of lexical specialization we present on these topics indicate that the Ahtna are preeminent fishers with considerable knowledge of salmon behavior and biology.

The Ahtna language is one of 11 distinct Athabascan languages spoken in Alaska. Ahtna territory includes the entire Copper River Basin, the upper Susitna River drainage, and the upper portion of the Matanuska River. Neighbors of the Ahtna include the Dena'ina to the west and south, and the Tanana, Tanacross and Upper Tanana to the north and east. There are four regional dialects of Ahtna that differ in phonological and lexical details (see Figure 2-1). All speakers of Ahtna, regardless of what dialect they speak, can readily understand one another (Kari 1990:20). The four dialects of the Ahtna language and the villages where they are now spoken are listed below

- Lower Ahtna: Chitina and some people in Copper Center
- Central Ahtna: Copper Center, Tazlina, Glennallen, Gulkana, and Gakona
- Western Ahtna: Cantwell
- Upper Ahtna: Mentasta

In this chapter we discuss four topics on Ahtna fish and salmon vocabulary. First we present the overall inventory of Ahtna fish and a discussion of the two-fold classification in Ahtna between *luk'ae* and *tsabaey*. Second, we discuss the array of 'varietal' terms we have found for stages and phases of salmon and other fish in Ahtna, as well as some other lexical items in Ahtna that are compounds of the fish terms. Third, we present the terms for the anatomy of fish along with a semidiagrammatic drawing of a female salmon cut away to show portions of the internal

Figure 2-1, Ahtna Language Area



### The Ahtna Language Area

language boundary



dialect boundary



Dialect name



organs. In the last section of this chapter we briefly discuss comparative Athabascan and the prehistoric implications of the regional lexical distribution of the Ahtna fish terminology.

### *The Ahtna fish inventory*

The study of traditional ecological knowledge begins with the identification and naming of species (Berkes 1999:37). Clarifying what species people are referring to is obviously important, but learning how people categorize and give names to things also leads to further understanding of their worldview. Towards this end, we summarize fish ecology from the Ahtna point of view including how the Ahtna name and classify the different species of fish found in their territory.

The Ahtna have terms for 19 species of fish (see Table 2-1) in the overall language area. (Vocabulary data here and elsewhere in the report are from Kari 1990, the *Ahtna Athabascan Dictionary*, with some refinements added during this project.) The Ahtna recognize and have named all 14 species of fish that are identified in the Alaska Department of Fish and Game species inventory and found in the Copper River Basin. One fish, pike, found in the Mentasta or Upper dialect, occurs in the Tok River drainage. Pink salmon, chum salmon, needlefish, and hooligan (eulachon) are known in the Matanuska River area or via trade. The Ahtna lexical inventory for fish is a good example of local people's ability to precisely describe local fauna (cf. Hunn 1980 for Sahaptin fish terms).

Ahtna have numerous terms for fish and the full set of fish terms is known to most men and women who speak Ahtna.<sup>1</sup> There is a small degree of lexical variation between Ahtna dialects for the 19 fish. For example, Arctic grayling (*Thymallus arcticus*) has two terms, the Upper Ahtna term is *segele*, while the Central and Lower Ahtna term is *sde' t'aeni*. There are three terms for Dolly Varden (*Salvelinus malma*) in the dialects, and sometimes the Central, Lower, and Upper dialects Ahtna term, *ts'engastlaeggi*, is applied to rainbow trout.

The different fish species are distributed differently throughout Ahtna territory. Coho salmon (*Oncorhynchus kisutch*) and steelhead (*Oncorhynchus mykiss*) come up the Copper River only as

far as the Tazlina River drainage. Rainbow trout are most common in the lower Copper and Matanuska Rivers. Table 2-1 also includes important fish that are found elsewhere in Alaska but absent in the Ahtna language area. Ahtna gained access to fish, such as least cisco and broad whitefish, through trade with neighboring Athabascan groups, such as the Upper Tanana.

Shown in boldface type in Table 2-1 are the two commonly used generic terms: ***tsabaey*** ‘fish with white flesh, fish other than salmon’ (locally “trout”), and ***luk’ae*** for *Oncorhynchus sp.* except trout and steelhead. ***Tsabaey*** is the more general of these two terms and is the term used for the class *Pisces*. The use of these two generic terms is pervasive as the following quotes illustrate:

*Fred Ewan:* Tsabaey is everything, tsabaey is grayling, whitefish, ts’anyae, dahts’adyeh, but not salmon.

*Adam Sanford:* Yihwts’en ’unggat Taltsogh Caegge yet cu neghak’ae kughile’a little while.

/From there upland of the ‘mouth of yellow water’ we had a home for a little while.

Yet c’a luk’ae gha sdelts’iix.

/We would stay there too for salmon.

Tsabaey, tsabaey gha sdelts’iix.

/For trout (non-salmon) we would stay for ‘trout’ there.

*Bell Joe:* Tsabaey, that’s any kind of fish, grayling. Whitefish, up the line [in Upper Tanana, what] we call tsabaey. They call it tuug.

(Editorial Note: When we present Ahtna language text in alternating lines, the line beginning with the symbol / is a translation of the preceding line.)

In many of the Athabascan languages there is a single ‘life-form’ term for fish such as in Bell Joe’s reference to the Upper Tanana, where the word ***luug*** refers to ‘fish’ and to ‘whitefish’ or *Coregonus sp.* In Ahtna the root term ***luk’ae*** applies both to ‘sockeye’ and to the generic category ‘salmon’, a semantic pattern that is also shared with Dena’ina. However, it appears that the main term for salmon in ten other Alaskan Athabascan languages, all of which are in the Kuskokwim or Yukon river drainages, is the chum or dog salmon (*Oncorhynchus keta*).

The use of *tsabaey* as a generic term ‘fish other than salmon’ is unique to Ahtna. In the Athabascan languages spoken in the Tanana Valley the cognate term refers to *Coregonus sp.* or to various whitefish. Referring to Table 2-1 in the column *lexical distribution* this semantic shift, Tanana River ‘whitefish’ to ‘fish other than salmon’ is symbolized as »A to indicate “meaning has shifted in Ahtna.” The only two Athabascan languages that seem to have a salmon/non-salmon dichotomy in their fish vocabulary are Ahtna and Dena’ina, the two Athabascan languages that are south of the Alaska Range and that have the prolific salmon resources. It is also interesting that the term for ‘fish other than salmon’ in Dena’ina is *shagela*, which is an extension of the proto-Athabascan term for ‘grayling.’ These linguistic comparisons are offered here only as an example, since full comparisons are far beyond the scope of this report.

#### *Varietal terms for salmon and other fish*

There is considerable lexical elaboration in Ahtna for varieties of fish and especially for salmon. Varietal terms for fish are presented in Table 2-2 along with an indication of dialect if the term is limited in its use, and with literal translations.

Distinct home-stream populations of salmon are given names with the structure *place name + luugge*. This was presented in some detail for the upper Copper River in Kari (1986:191-92), where he noted that twenty-one side streams that have had runs of sockeye or chinook are named, e.g. *ts’itae luugge* ‘flows straight fish’ is the Sanford River king salmon. The most well-known home-stream names known throughout the Ahtna language area are *natael luugu* ‘roasted salmon fish,’ a large sockeye bound for Tanada Creek and Tanada Lake, a highly valued food fish; and *sasluugu* ‘sand sockeye’, a small sockeye that is bound for Suslota Creek and Lake. In his report *The Red Salmon of the Copper River, Alaska*, USFWS fisheries biologist Seth Thompson (1964:44) documented these two Ahtna salmon stock names as early as the 1930s:

It is said that Suslota Lake supports a race of salmon considerably smaller in size than the salmon bound for other tributaries, and natives at fish camps in the vicinity of Gakona, without hesitation segregate their catches into

“Batzulnetas fish” and “Suslota fish”. The word “Suslota” is said to mean “small salmon” in the language of the Copper River Indians.

The largest and most well known chinook salmon is the *kentsiina’i* or *kentsii luugge’*, the ‘spruce bark canoe salmon’ of the Tonsina River. This term is also used when the large kings are found above the Tonsina River. Further discussion of the Ahtna concept of stocks of salmon can be found in Chapter 3.

The degree of lexical elaboration for salmon greatly exceeds that for *tsabaey*, non-salmon fish, which underscores the great importance of salmon to the Ahtna. When we discuss fish anatomy later in this chapter and fish foods in Chapter Seven, we will see that these vocabulary domains are also far more detailed for salmon than for any other fish foods. It is interesting to note that among other Alaska Athabascan languages only the Dena’ina dialects have a similarly detailed array of varietal terms for salmon (Kari 1994:12-19.)

There are some other Ahtna lexical references to fish, most of which are compounds with *luk’ae* or *tsabaey*. The month of May is *tsabaey na’aaye’*, ‘whitefish/trout month’ for the harvest of whitefish and other fish in late spring, and the month of June is *luk’ae na’aaye’*, ‘sockeye month.’ The generic term *tsabaey* can also refer to the calf of a human leg. One clan name, *Cela’yu*, is the ‘salmon tail clan.’ The origin story of this clan has a pair of girls acquiring this clan affiliation after migrating from the Copper River down the Matanuska River.

### *Fish anatomical lexicon*

The terms for fish anatomy are well known to Ahtna fishers who are expert at processing fish (see Table 2-3 and Figure 2-2). The fish anatomical lexicon is a subset of the elaborate anatomical lexicon of Ahtna and Athabascan, where root terms predominate. Fish anatomy combines some unique fish anatomical terms with general anatomical terms. Interestingly, the fish anatomical terms are closely tied to the many special fish cutting and butchering terms which are discussed in Chapter Seven. The great lexical specificity both in fish anatomy and fish cutting terms is indicative of the highly technical nature of Ahtna fish knowledge.

**Table 2-2: Varietal terms for salmon and other fish**

<b>A. Life stages</b>	<b>Ahtna Term</b>	<b>Literally</b>
salmon alevin, new-born salmon	<i>luk'ae yiige'</i>	'salmon's spirit'
baby fish, fry (any fish)	<i>tsabaey yiige'</i>	'fish's spirit'
<i>also</i>	<i>c'eyuuni tsabaeye'</i>	'ghost's fish' (also is for 'mosquito larvae')
minnow, fry (meaning uncertain)	<i>tsinalc'o'li</i>	'bent head'
salmon fingerling, juvenile salmon	<i>luk'ae ggaay</i>	
'little salmon' fry heading downstream	<i>'ul'uli (U)</i>	'those that are swimming past'
female fish	<i>K'unn'i</i>	'the roe one'
male fish	<i>tl'ets'i</i>	'the milt one'
sockeye before it turns red		
full-sized, prime early run sockeye	<i>mulaeggi (C only)</i>	'island swimmer'
spawning fish	<i>tazdlaexi</i>	'those that are swimming in water'
group of spawning salmon, jumping in stream	<i>kata'ile'i</i>	'the ones that are coming up in the water, are surfacing'
dead salmon	<i>tultaeni</i>	'the one that is dead in water'
spawning salmon, late stage	<i>dadzaasi</i>	(archaic verb root meaning 'late stage spawned out fish' )
first salmon caught in summer	<i>tsaedi</i>	'the first one'
the first salmon; first salmon rituals	<i>tsoxe c'elaxde</i>	'when the first ones are running'
last salmon caught in the season	<i>k'ets'eni</i>	'the last ones'
leader of a school of salmon	<i>luk'ae kaskaek'</i>	'salmon's chief'
nickname for silver salmon	<i>tehdzuugge'</i>	'underwater princess'
jack king salmon	<i>daes ggaayi</i>	'small one of the sandbar'
humped phase of sockeye, late running sockeye	<i>dak'aay (LC)</i>	'that which is ridged, humped'
August sockeye	<i>taex luugge' (L)</i>	'underwater salmon'
late sockeye in Tonsina Lake	<i>tsiis luugge'</i>	'ochre salmon'
whitefish caught in fall at freeze up	<i>nen'ten luugge'</i>	'frozen ground fish'
<b>B. Legendary fish figures and places</b>		
mythological giant fish (lake fish: lake trout, ling cod, whitefish)	<i>ben yiidi, ben yii</i> <i>c'eltaeni, (CLU) ben</i> <i>eltaeni (W)</i>	
salmon man	<i>luk'ae koht'aene</i>	
salmon people	<i>luk'ae tnaey, luk'ae</i> <i>'iine, or luk'ae tnaey</i> <i>'iine</i>	
leader of a school of salmon:	<i>luk'ae kaskaek'</i>	Salmon's Chief
small king salmon, the Salmon Boy (see discussion in Chapters Four and Eight on the <i>Salmon Boy</i> story)	<i>bac'its'aadi</i>	'that which is highly regarded'
out side and downstream (where salmon go to the ocean)	<i>'unsgghu daa'a tah;</i>	'out beyond - downstream'
downstream (in ocean) where the salmon stay, where salmon come from	<i>udaa'a tinac'idlaexde</i>	'downstream where they swim backout'

**Table 2-3:, Fish Anatomical Lexicon, partially shown in Figure 2-2**

<b>External anatomy unique to fish</b>	<b>Ahtna Term</b>
fish tail:	-cela'
fish scales:	-engguudze'
nose, snout of fish:	-engguudze'
gills:	-k'ests'e'
slime of fish:	-tl'ese'
fish fin (any):	-t'oghe'
adipose fin:	-cel t'oghe'; ce' ghaaghe t'oghe'
anal fin:	-tsel t'oghe'
dorsal fin:	-yen t'oghe'
dorsal fin of grayling:	-ts'edae' 'its blanket'
pectoral fin:	-dzaghal t'oghe'; -zæghe t'oghe'
pelvic fin:	-t'aay t'oghe'
tail fin, caudal fin:	-cela' t'oghe'
<b>Common external anatomical terms (for all animals)</b>	
head:	-tse'
eye:	-naegge'
nostrils:	-engestah
gills of fish, jowls of person or animal	-k'ese'
skin of animal, fish:	-zes
salmon skin:	luk'ae zes
fish skin:	tsabaey zes
<b>Internal anatomy (unique to fish)</b>	
fish bones:	-yen c'ogge'
tail bone:	-cila' ts'ene'
fin bones:	-t'oghe' ts'ene'
cartilage in salmon's back:	-yentlode'
nose cartilage of fish:	-entlode'
collarbone strip of fish, pectoral girdle:	-dzaghal t'agge'
dark blood of fish:	-caan hvdistl'iize', -caan -tl'edze'
fish flesh, fish meat:	c'enaat'
meat on base of fish tail:	-celat'agge'
fish milt:	-tl'edze'
fish eggs, roe:	k'uun'
roe sac:	k'uun' na'udelniigi
fish gut with stringy end, pyloric caecum:	'-tsengalnaadze'; -tsengalgaedze'
ballast stones in fish's head:	ts'estle, ts'es delggayi
<b>Common internal anatomical terms (for all animals)</b>	
heart:	-ciz'aani
intestine:	-ts'iige'
backbone, spine:	-yene'
blood along backbone:	-yene' dele'
collarbone:	-t'agge'
liver:	-zet'
spleen:	-tl'ets'
brain:	-tsighaan'
stomach:	-caan
rectum, rectal vent:	-tsel
bladder (of mammal, fish):	'-lose'



### *Prehistoric Implications of the Regional Lexical Distribution of Ahtna Fish Terms*

Comparing Ahtna fish terms with fish inventories in other Athabascan languages can offer some sense of archaic retentions or lexical innovations in Ahtna and of regional diffusion patterns. In Table 2-1 the regional distribution of the Ahtna fish terms in Alaskan Athabascan languages is given an approximate indication in the column *lexical distribution*. An “A” by itself in this column means that the term is found only in the Ahtna language. In historical linguistics we can assume that terms that are only found in Ahtna, such as *ts’angastlaeggi*, Dolly Varden, lack the antiquity of terms that have some wider cross-language and regional distribution. The terms for steelhead, Dolly Varden, and rainbow trout are innovations in Ahtna that are not used in other languages.

Fish terms that are probably from proto-Athabascan are marked with PA in Table 2-1. Some of these are roots that have the symbol √ in the literal translation column. There are eight fish terms in Ahtna that seem to be archaic retentions from proto-Athabascan: salmon (generic), lake trout (*Salvelinus namaycush*), burbot (*Lota lota*), Arctic grayling (*segele* (Mentasta)), humpback whitefish (*Coregonus clupeaformis*) (*luux*), round whitefish (*Prosopium cylindraceum*), and longnose sucker (*Catostomus catostomus*) (*tats’ade* (Mentasta)). The term for lamprey (*Entosphenus tridentatus*) *tl’aghes*, may be from proto-Athabascan or is a PA term that came into Ahtna with an altered meaning. (Perhaps this term originally meant ‘snake’ or ‘leech’; i.e. the reconstructed meaning is still uncertain.) A term of uncertain antiquity is *dadzeli* for steelhead, a term that is found nowhere else in Alaska but which may have cognates in distant languages Babine (in British Columbia) and Hupa (in California).

Other regional lexical distributions are more restricted. The Ahtna term for chinook salmon is found in Dena’ina and Middle Tanana but in no other Athabascan languages. The term for pike is found in three Tanana River languages and in Dena’ina. One term for grayling, *sde’ t’aeni*, in Central, Lower, and Western Ahtna has cognates in Dena’ina, Lower Tanana, and Upper Kuskokwim but is not found elsewhere. The Ahtna-Dena’ina shared innovations (needlefish, eulachon, chinook salmon) are part of the general bilingual diffusions that have taken place between these two languages for two thousand years or longer (as discussed in Kari 1977). One

varietal term in the Central dialect of Ahtna implies a north-to-south population shift: *nulaeggi*, a term in the Central Ahtna dialect only, literally ‘island swimmer’, is for an early running, full-sized sockeye, a prime fish in the early part of the season. Interestingly, a cognate term in Upper Kuskokwim, Lower Tanana, Middle Tanana, and Koyukon refers to the summer-running chum salmon.

One could speculate that there have been three significant sets of historical changes in the Ahtna fish lexicon. These changes may have been triggered by the Ahtna’s entry into the Copper River basin and imply that the Ahtna entered the Copper River from the Middle Tanana River (the Salcha-Big Delta area). The changes are listed below:

1. the newly found and highly plentiful sockeye salmon became the default term for ‘salmon’, shifting from chum salmon in the Tanana River.
2. due to the abundance of salmon in the Copper River, the Tanana Valley term for whitefish *Coregonus spp.*, *tsabaey*, developed into a generic term ‘fish, fish with white flesh’ to contrast ‘salmon’ with ‘non-salmon.’
3. the newly acquired fish species steelhead, rainbow trout, and Dolly Varden were given innovated terms in the Ahtna language.

Such innovations and changes in the Ahtna fish lexicon likely are ancient, and may date from the time of the earliest occupation of the Copper River by the Ahtna people. This type of comparative analysis could be extended to other domains of the Ahtna fish and fishery vocabulary, such as technology and food. We cannot do a broader comparative study at this time, but it is clear that Ahtna has a large amount of specialized fish and fishery vocabulary that includes many root terms.

### *Summary*

In this chapter we presented linguistic data on the Ahtna classification of fish species found in the Copper River Basin. As with the study of the science of ecology, the study of traditional knowledge begins with the identification and naming of species. Ahtna have created a sophisticated fish taxonomy based on a two-fold classification between *luk'ae* and *tsabaey*. *Luk'ae* applies both to 'sockeye' and to the generic category 'salmon', *Oncorhynchus sp.*, except trout and steelhead, while *tsabaey*, is the more general term used for the class *Pisces*, and refers to 'fish with white flesh', or "fish other than salmon.' The degree of lexical elaboration for *luk'ae* far exceeds that of *tsabaey*, underscoring the importance of salmon in Ahtna culture. Within the Ahtna classification system there are names for all 14 species of fish found in the Copper River basin, and cataloged by the Alaska Department of Fish and Game. In addition, Ahtna have classified at least five species of fish found outside the basin. Ahtna knowledge of fish is also demonstrated by the array of 'varietal' terms used to describe the different stages and phases of fish, and the terms used to describe both the external and internal features of fish anatomy.



**Chapter Three**  
**AHTNA KNOWLEDGE OF SALMON**  
**DISTRIBUTION, BEHAVIOR AND HABITAT**



**“Any time you see any Indian village over here, you gotta see, maybe just 100 years 200 years. Just as long as they get food, some kind a fish. Where they get fish easy, that’s where they always stay.” – Fred John Sr.**

*Introduction*

Ahtna knowledge of the natural history of salmon is comprehensive. It includes knowledge of the distribution of salmon stocks, knowledge of salmon behavior and life history, and detailed awareness of salmon habitat. We begin this chapter with a brief discussion of Ahtna geographical knowledge as it relates to the distribution of salmon and salmon fishing sites. In the Ahtna geographical system most if not all salmon streams were named, along with the fish stocks associated with that stream. In the second section of this chapter we summarize various types of information on the Ahtna awareness of the distribution of salmon and Ahtna knowledge of Copper River salmon stocks. We then provide excerpts of Ahtna descriptions of the life cycle of salmon and conclude the chapter with some observations on changes in the environment that, according to Ahtna, may have affected salmon.

*Ahtna Geographic Knowledge and  
The Distribution of Fish in the Ahtna Language Area*

The systemic aspects of Ahtna geographic knowledge have been discussed in Kari (1989). One of the key features of Ahtna ethnogeography is that most speakers know several hundred place names that are distributed throughout the entire language area. These include well-known names such as physiographic provinces, the major streams and mountains, points on the Copper River, and famous village and camp sites. Other place names are in the local band territories and are known by persons who have traveled and lived in these territories. Based on oral accounts, it appears that most Ahtna men knew two to four local band territories in fine detail (Kari 1986:153-217).

Generally speaking the Ahtna place name system emphasizes linear features, especially streams and ridge lines, while it de-emphasizes minor landforms, cultural features, and high country. All major streams are named as well as all lakes on the stream systems that, to the Ahtna, have some useable resources. A stream name often is derived from the name for a nearby hill or mountain or vice versa. Names for stream mouths, headwaters, and glaciers occur in clusters and are derived from the basic stream name. A stream name never changes in mid-course. The prominent accessible ridges, hills, and points below 5000-6000 feet in elevation are named. These include the hills in the upland hunting areas on the margins of the Alaska Range and the navigational points around the shores of Cook Inlet. However, in the high mountain regions only a few of the major mountains, such as Denali/McKinley, are named, and the other high mountains are subsumed into one of the regional names.

Using Kari’s list of place names we have been able to track several kinds of information:

- 1) Species of fish that are known to be in specific streams
- 2) Ahtna fishing sites
- 3) Technology used at sites
- 4) Species harvested at specific sites, and
- 5) Place names that specifically refer either to fish or to the fishery.

At this point we have identified the following number and types of named fishing sites in the place names lists.

Salmon fishing sites (F1)	159
Possible salmon fishing sites (F1?)	7
Non-Salmon fishing sites (F2)	171
Possible non-salmon fishing sites (F2?)	7
Combined sites, salmon & non-salmon (F1-F2)	20
Recognized spawning districts (F3)	12
Total	376

Several clarifications are in order. Many of the fishing sites are well known and have been mentioned either in historic sources or in the first-hand accounts from Ahtna speakers that we have reviewed. Other locations we have flagged for further investigation. Also at this point, the foremost experts have not reviewed the overall inventory for lacunae and refinements. By linking fishing sites with place names, we are not mapping specific locations of dip net sites or

fish wheels. Any number of specific fishing locations could have been located at one named location, and the sites might have varied from one year to the next, but there would be one place name for this generalized location. See also Figure 6-1 on Ahtna salmon harvest sites.

Summarizing the distributional data in more detail we can make several generalizations. a) There is a vast amount of documentation on the subject of Ahtna fishing locations. The sources we have reviewed include Thompson (1964); the field notes and audiotapes made by Frederica de Laguna between 1954 and 1968; the work of Reckord (1983a,b), West (1973) and other sources in the Ahtna anthropological literature; various historical sources such as Powell (1910), Hazlett (1898), Bourke (1898), and Austin (1899 (1968), portions of the large audio tape collection now residing at Ahtna Inc., which has more than 200 items; the notes, maps and texts associated with Kari's Ahtna language and place names research (Kari 2001); and the interviews and notes that are a part of the current project.

b) Ahtna elders, especially the recognized experts, have a comprehensive sense of the Copper River drainage system and adjacent drainages and the fisheries. Usually they know a couple of fishing districts from personal experience and they know fishing patterns in the general language area from shared Ahtna oral tradition.

c) Many common themes occur throughout the fishery narratives by Ahtna elders, and these topics are explored in subsequent chapters. Regarding salmon distribution, elders know which species are headed for which spawning streams and the typical timing of the runs, although the vast majority of the harvest activities takes place in the main stem of the Copper River. Those side streams known as spawning grounds were not used during the month of June, the primary month for harvesting salmon. The harvest of salmon at more distant points in the side streams usually has occurred after the peak June season, and in conjunction with hunting.

### *Ahtna knowledge of salmon stocks*

The Ahtna give names to salmon runs that emanate from particular home streams. This is especially well documented for the Upper Ahtna, where for example, twenty-one different salmon runs on tributaries of the upper Copper River above the Sanford River have distinct names (see Table 3-1). Each run is named for a side stream or place, and Ahtna say that they can discern the differences among fish from the various locations (Kari 1986:191). These named runs are comparable to the “salmon stocks” recognized by the Alaska Department of Fish and Game. For the Copper River drainage the department recognizes over 100 individual sockeye salmon stocks. A salmon stock is defined as a “unique spawning population of salmon,” and one tributary stream of the Copper River may have more than one stock. These separate stocks usually spawn at different times and in different locations. Tanada Lake, for example, has two stocks of sockeye, one that spawns at the outlet of the lake and one that spawns in the lake (Personal communication, Tom Taube 6/2001). Ahtna do not recognize these separate Tanada stocks but classify all sockeye salmon from Tanada Lake as *natael luugu*’ or ‘roasted salmon fish.’

In the following section we present some excerpts from accounts about salmon distribution. In this interview elder Bell Joe (Ahtna Tape 110) of Chistochina inventories the salmon streams on the Upper Copper River. First he lists the creeks with Chinook salmon runs and then those that have runs of sockeye. At the end Bell notes that all Ahtna living along the Copper River recognize sockeye from several streams of the upper Copper River: the *natael luugge*’ big sockeye salmon bound for Tanada Creek as well as those bound for Copper Lake and the Slana River drainage.

Bell: Then from there Ts’itael Na’, that’s the main Sanford River, king salmon go up there too. And from there, Caribou Creek down there, there’s another king salmon go up there to up Sanford way. Sdzedi Na’ that’s what they call Caribou Creek. Long time ago old people used to be fishing there. Way before Russian come to Alaska they had village there. And he had tez’aann (fish trap), everything.

**Table 3-1 Upper Copper River and Slana River Named Fisheries**

<b>Upper Copper River Fisheries</b>	<b>Translation</b>	<b>Location</b>
<i>Łuk'ece'e luugge'</i>	'king salmon fish'	creek south of Drop Creek
<i>dzahnii luuggu'</i>	'rarely mentioned fish'	upper Copper River and Copper Lake
<i>natael luugu'</i>	'roasted salmon fish'	Tanada Creek and Tanada Lake
<i>c'alts'iis luugu'</i>	'abraded (rough) fish'	Ahtell Creek
<i>Tak'ats Lugge'</i>	'springwater fish'	Rufus Creek (dolly varden stream)
<i>sasluugu'</i>	'sand sockeye'	Suslota Creek and Suslota Lake
<i>tsikohtsedl luuggu'</i>	'? small fish'	Suslositna Creek
<i>kolgiis luugu'</i>	'? fish'	Bear Valley Creek
<i>mendaes luuggu'</i>	'shallows lake fish'	Mentasta Outlet and Mentasta Lake
<i>c'eggaan' ts'en luugu'</i>	'arm bone fish'	Bone Creek
<i>luk'etu' luuggu'</i>	'fish soup fish'	Granite Creek
<i>saas k'eti'itaan luugu'</i>	'trail goes on sand fish'	on upper Slana River, three miles above Jack Creek
<b>Chistochina Area Fisheries</b>		
<i>ts'itael luugge'</i>	'flows straight fish'	Sanford River
<i>taltsogh luugge'</i>	'yellow water fish'	Tulsona Creek
<i>sdzedi luugge'</i>	'? fish'	Caribou Creek
<i>kedileni luugge'</i>	'fish of water flows against a place'	creek south of Boulder Creek
<i>tsedghaazi luugge'</i>	'rough rock fish'	Boulder Creek
<i>tsedghaazi ggaay luuge'</i>	'small rough rock creek'	small creek above Boulder Creek
<i>snuu luugge'</i>	'brushy area fish'	Sinona Creek
<i>nataghilen luugge'</i>	'fish of current flows down'	East Fork of Chistochina River, including Mankomen Lake
<i>di'idaedl luugge'</i>	'fish swim in (river) fish'	Indian River
<i>tsedghaan' luugge'</i>	'moldy rock fish'	creek north of Boulder Creek

Source Kari 1986:191-192 in addition to recent refinements

used the name "Sheep Creek." Now he call Boulder Creek. King salmon go up that way too. And from there, another creek king salmon go up is Snuu Na' (Sinona Creek). They used to have a fish trap there, them days. From there, another creek Tsidghaazi Na' ('rough rock creek') Boulder Creek, 1921 they

Another one about one mile above Boulder Creek, another little creek going up, king salmon go up there to. Tsidghaazi Ggaay Na' ('small rough-rock creek'). And from there up about another 5 or 6 miles there's another king salmon go up there too. Ts'etiil Na' they call it. That's where Gene Henry born. From there is luk'ece'e Na', 'king salmon creek'. That's this side of Slana about five miles. From there Banzaneta this side, old village this side, that mouth of that creek, king salmon go up there too.

The next one king salmon going up the other side of Mentasta is that Bone Creek. King salmon go up there too. Indian used to have a camp there, dry the fish everything. And they had another one all the way up at Lost Creek, king salmon go up there too.

Some kings might go up to Jack Creek, don't know.

Now another fish running, on this side, Tulsona Creek (Taltsogh Na' or 'yellow-water- creek) down here. King salmon go up that way too.

Q: What about sockeye?

Bell: Sockeye he go to Banzaneta Creek, another sockeye going up to Tanada Lake. Then another one going up Copper River up to Copper Lake up there. Dzah Nii Bene', that's where king salmon go up too, he have a bridge (fish weir) up there, old timer used to stay there. Sockeye going up the Slana River, right hand side, mile 73 used to be. Across there there's another salmon going up to Suslota Lake, another one, below Mentasta another creek, that just sockeye going up there too. And lake he call Men Ti'ets (lake on Eagle Trail). Katie [John] she know the name, I forgot, I been there though. That Suslota, there is little fish. That why they call sas luugge', small you know, about the same big as whitefish I guess.

When those old people used to stay, he used to say, when he catch em down there at Copper Center, he say that's natael luugge' he say. And then he say that one, Copper Lake, and Mentasta Salmon, that one he know too. Every creek salmon he know, little different he name it, used to be old people know, we don't care much to pick em up and we don't know, every creek different name he got fish. Everybody like Banzaneta fish. All the way down, Chitina, Gulkana, Copper Center, Chistochina, every place, he like Banzaneta salmon, you know big, got lotta meat.

Xay luugge' (silver salmon), don't come up this way, he just come to Tonsina, Tazlina River.

Katie John (Ahtna Tape 111) takes up the discussion where Bell Joe leaves off, providing additional detail about the upper Copper River. She begins by stressing the point that in her memory there has been no chinook salmon in Tanada Creek or Tanada Lake. Reiterating Bell Joe, Katie says that Ahtna all along the Copper River are able to recognize, according to their size, the different stocks of sockeye salmon headed for the Slana and upper Copper River. She points out the sockeye from Copper Lake have a small hump that distinguishes them from other sockeye. Katie also notes that beaver dams have blocked some spawning streams in the Slana drainage.

Q: How about king salmon?

Katie: There's no king salmon (in Tanada Creek). One time game warden coming down Banzaneta and he told me, if you catch king salmon in the wheel you throw it back in the river he tell me. I say "I been living here and I been fishing here and I never seen one king salmon. Why the hell king salmon gonna come I tell em." He (king salmon) come up the Slana River. No king salmon my whole life (in Tanada Creek and Lake) I never see one. No king salmon up that way, nothing.

Q: Would that [Suslota Creek] be very good compared to Tanada Creek?

Katie: Well pretty old when salmon come up Suslota Creek. Sometime hardly water that creek. And I think mostly fish get stuck all the time. When rain start then lota salmon went up. That's not too big fish, Sas luuggu' (Suslota Creek salmon) a little fish. They know the sas luuggu' downriver. They know fish, sas luuggu', [and] tsik'ohtsedl luuggu', (Suslostina salmon) all up how many creek, fish coming, they all know (the stock of fish) tsik'ohtsedl luuggu' that's more smaller, more smaller than Sas luuggu'.

Q: Do they taste different?

Katie: No same taste but the size is different.

Q: In the sidestream of Slana, were they important for fish or just for spawning?

Katie: Tsik'ohtsedl, (Suslotina Creek) they used to have camp there for that fish, that's a long time ago. And Suslota. That's where they start having village there (new Suslota) and they had fish coming there. They catch fish. And they start village, Bes Ce'e, New Suslota.

Q: And further up the Slana?

Katie: When we come up, Sas luuggu', tsik'ohtsedl, and mendaes luuggu' that's three (stocks of sockeye salmon). That's three up this way. And going up this way C'eggaan' Ts'enn' Na' [Bone Creek] mostly king salmon go there. No more now though. All the beaver dam it up everything. And long time no more fish there. Used to be king went up that way, and even little salmon went up that way. After that all the beaver make different lake. He close all the way up and we never see salmon up that way when we go hunt that way. We don't even see fish bone. Before that I see king salmon, you know those pond, tl'aat, you used to see king salmon and the little fish. Kolgiis Na' [Bear Valley], that one kind a little salmon too I think. Three little fish come up this way and Mentasta fish is bigger. That Suslota, and Basditl'uunn Na' (creek that flows into the Slana River from the east) and up this way.

Q: Tak'ats Na' (Rufus Creek) does it get salmon?

Katie: No, no salmon there, they got those Dolly Varden, ts'engastlaeggi.

Q: Why they call it that?

Katie: You know kind of all different color on it. Little black color, that's what he look like. I think that's what he mean, ts'engastlaeggi. Just like "poor looking" or something. Rufus Creek, you know that creek don't running, Bazaneta old village, he come out under the ground. Log Camp, that C'ecaegge we call em, from that way them creek come out from the ground.

Q: How about dadzeli (steelhead)?

Katie: That's down Copper River too. That's fall time. That's two different fish coming they say. That winter fish, xay luuggu' (silver salmon), and dadzeli. It taste different. One time I eat down Copper Center. Dadzeli he taste different. I don't know how he look though.

Q: What about Kolgiis Na' (Bear Valley)

Katie: They get king salmon, but no reds. King salmon they get there. Indian River king salmon too.

Q: How about Dzah Nii Menn' (Copper Lake).

Katie: That dzah nii luuggu' they used to call it, salmon, but they got little hump back like that, that kind of fish went that way. Łuk'ae but different back he got. No king up there.

Q: How about Mentasta Creek?

Katie: Regular sockeye, they can tell that too. I used to know when I was stay down Copper River. I know. They know too, they say Sas luuggu' coming. Men Daes luuggu' come, they all know. No kings in Mentasta

Lake, but he go past, he go past there to Bone Creek. Then there's that Łuk'ae Tu' Na' (Granite Creek), he got king salmon yet. Then there's that Saas K'eti'ittaaan luuggu' (on the Slana River) that was the last one. I think there's salmon at that one, no king. Just only two creek with king this way.

Q: If they had salmon way up Slana River, when would they get them?

Katie: They just passing through, you know fish where he spawn, they gotta go back there, they (fish) don't go no different place. That's Mentasta, if fish spawn here that's only place they gotta come.

Q: Would they ever go up that way (head of Slana) with tiz'aann?

Katie: No they use dip net. They don't have a camp up there. They got a hunting camp, but they just take it out with spear, anyway they use those, and just for the eat (eat fresh), they just get it. And I never hear they have a village up that country. Only Bone Creek long time ago they had a village for that fish.

And I don't know what happen, they all die off. That's a long time ago they used to had. Not really village but they had a camp there for all the time for fish. They never say tak'ae [valley bottom area]. Village they call tak'ae. I think there must be camp there, get enough king salmon. Pretty poor though king salmon up there. They travel long way. One time we pick up one king salmon, that's too old and we can't eat it.

Q: What about Mentasta Lake fish.

Katie: Sometime pretty good shape Mentasta fish. It is best before lake. They used to had bridge (fish weir) the other side outlet, old village, that's where they used to have bridge and tez'aann and things like that.

### *Observations on the Life Cycle of the Salmon*

In an interview conducted in August of 2000 elder Frank Stickwan (Ahtna Tape 123) described the life cycle of the sockeye salmon first in English and then in Ahtna. Frank provides an informative description of how the sockeye salmon migrate to the lakes where the females lay their eggs and when the salmon are born they are the size of mosquito larvae. The salmon fry grow to about the size of "baby whitefish" and remain in the lake all winter long, until they reach the size of "grayling." With high water in the spring the fry migrate out of the lakes and swim downstream to the ocean where they grow and mature. In the early summer the full-grown salmon return to their natal streams and lakes where they were reared. When they arrive at the mouths of the streams the fish form schools before ascending the stream back to the lake. Frank

remembers that in the past (Frank was born on 1902) there used to be huge schools of salmon in the Copper River.

They go up this way to Tazlina Lake, Paxson, Klutina lake, Tonsina Lake, all them big lakes about 150 feet deep, see all the salmon all go in, nahwdelaes all, (they lay eggs) k'uun' (female salmon). How many thousand k'uun' you know, in the lake. Pretty soon about that big. They (the salmon fry) stay all winter long in there (the lake). Big as grayling, big high water they going down all, they coming back down. Go down to the river, going back to the ocean, big (as) grayling, about that big in there. Down in the ocean they raise, luk'ae (sockeye salmon) about that big (1 ft.). And he (salmon) come back, they know where he come from, he go back to that same lake he from. All that lake, up to Paxson Lake, where they raise up. He about big as grayling when going back to the ocean, summertime July month he going back in there (back into Paxson Lake).

July i'aasden k'edze' natedlax tsabaey 'enlcaax xu' t'iis.  
/When July comes they make their return migration when they have become as big as trout.

Danse ts'itu' yii nadlaxde all yidaa' natu' yii nadlax,  
/They return out the Copper River and they swim downstream into the ocean.

'Udaa' xutic'a nenyax xut'ae.  
/Then they grow up downstream there.

Where he go u'et ts'etniigi [I don't know], many thousand miles someplace, where they raise up,

dae' nandyax xu' tnat'iis.  
/to wherever they have grown up.

Saen nakodlaexi, daan' nokodlaexi they coming back  
/As summer returns, as spring returns, they come back.

'Udaats'e natedlaxi denlcaax xut'aex  
/They swim back from downstream having become full-sized.

He know all that river. Ndaane 'uyggu nezyaan tah xu'et tnes."  
/He knows down below in the river [under the water] where he has been raised.

River de xu' nelbats'delts'iixde kiidiniix, he stop where river  
come to Copper River  
/He stops there at the river mouths and they wait in a school.

And when he [the salmon] all come, he stop there. Ten or twenty miles wide (the schools of fish), used to be long ago millions in the Copper River. No water that time.

Tuuk'e xughistle'i; ice yaen' kulaen, there was just ice.  
/There used to be little water [in the Copper River], there was ice only [i.e. glaciers were widespread].

Nanaat 'adii sendaa'ats'en 'uyggu ukulaen.  
/Across there (to the Wrangell Mountains) now, with the passing of time, down below they (the glaciers) are gone.

[niiteggane] tdu' xona all niidzinaadeli k'e nat'iis dze'. Ndoxo ts'inilaex xu ndaa nezyaan de xu' dyaak all nac'edlax xu.  
/Then all the fish began to separate [to their natal streams]. They swim back to where they were raised.

Every lake 'udaa' kudighiset, Paxson n'eł, xu ben yii nadlax xu' nat'iis.  
/To every deep lake, Paxson and others, they return.

C'eyiige' c'a xu' yii c'a nanahwdelaes k'e c'eyiige'.  
/There the fry are born, the fry.

Tsabaey ggaay nduu dencaax xu tat'iis. xu' k'uun' in'e. Łuk'ae ggaay  
/They are little fish about so big (the alevin), the little salmon.

Q: Did they ever catch those, the łuk'ae ggaay [small sockeye salmon]?

C'eyuuni tsabaeye' that kind nahwdelaesden yi k'ent'ae xona nahwdelaes de.  
/They are similar to mosquito larvae when they are born.

Nilden nyax de xu' tsabaey 'encaax xu' t'iis.  
/As they grow here in there, then they are about like baby white fish.

In the lake idelts'iix xu'ane xay 'udii c'a yi delts'iix  
/They stay in the lakes all winter long.

Q: They did not eat them in the winter? They did not try to catch little salmon in winter living in the lakes?

In the lake it hard to get em. No they don't bother, way in the middle of the lake, nobody touch it.

Tsabaey 'encaax xut'iis.  
/They are about as large as a whitefish.

Yeldu' 'utggadze natedlax,  
/As they swim up (to the upland the lakes),

ben 'enaghalt'aex, Tl'atina' bene' n'eł. Tazlina lake, Paxson/  
/in all the lakes, Klutina, Tazlina Lake, Paxson Lake,

xu'c'a ben yiik'e xu'a nandyaxde kiidiniix. Tsabaey 'en'caax xu t'iis k'edze'  
natedlax Copper River.  
/so they continue to grow in the lakes to be about as big as whitefish when  
they swim back out of the Copper River.

Unsghu 'udaa'a ocean, natu' yii nadlax. 'unsghu ndoxe tic'a  
ninadlaxi,  
/Then he swims downstream into the ocean swimming off somewhere out  
there.

We don't know where they go in ocean, too big water.

Right now 'adii xu' nt'ae. Nahwdghilaa xu, nahwdelaes de some he die,  
dead, all die, every one them dead after nahwdelaes.  
/Now it is that way. They lay their eggs, they give birth. S/he dies after s/he  
lays eggs.

Ik'ets'en yuugh den June month nakodlaexi 'et 'udaats'e natedlax.  
/Afterwards they return in June month coming back up from downstream.

That's the way that fish xu' t'aenden [behaves].

In this next segment Fred Ewan (Ahtna Tape 107) talks about the connection between water temperature and salmon movements upstream.

Q: How come fish run into creeks and some time they won't? Will they stay in the river for a while?

Fred: Yeah, I think they want warm water, not too cold. It's gotta be just right you know. Grayling down there, they run in cold water you know, all winter.

Must a been salmon need warm water. He's not coming in wintertime. Gotta be 50 above or something, 40 anyway. They stay down the mouth, seven miles down we got mouth of Gulkana River. He stay two days before it hit the river up this way. I don't know why, what the reason anyway. Two days you could see that, that's all king salmon. Just swarming around there.

### *Observations on changes in the environment*

In 1996 Katie John and Wilson Justin talked to the Alaska Board of Fisheries about changes they had observed in the upper Copper River fishery over the past several decades. This information was provided in the context of a discussion about changing the harvest seasons on the Copper River. Wilson Justin (Justin 1996) begins by telling the Board how he thought climate change had altered the water levels in some spawning creeks and lakes.

Wilson Justin – Thank you. In my mind, rather than looking at, I would look more at the temperature changes in the inland creeks and the small lakes than I would anything else. What is occurring in my area, and I'm talking about Mentasta and Chistochina, is that many stream beds are now too warm to maintain stocks and many shallow lakes like Mentasta, Lost Lake, and those other lakes are rapidly filling with vegetation. Now that has more of an impact on your stock than anything else. So I think the question really is moot whether or not you should open up the season May 1 or May 20<sup>th</sup>. The primary purpose of the run and seasons is nutritional. And I think you should adapt to the nutritional value of the salmon in the river, your regulations should reflect when they are best taken, not whether or not the stock might be wiped out by early opening. The stock is in danger now because of the type of temperature and climate changes we have faced for the past thirty years. I have known of lakes that have dropped four feet. Sometimes six feet in my area between 1970 and 1996 and that's a dramatic change in terms of stock and protection of stock, and I think the Fish and Game would do better to look at that type of data and then worry about whether or not we should open May 1 or May 20<sup>th</sup>.

Katie John (John 1996) talked about changes she had observed in the salmon migrating up Tanada Creek and at Cobb Lakes. She thinks there are no more large Batzulnetas salmon because all she caught in recent years were small sockeye. People stopped fishing in the creeks going to Cobb Lakes in 1942 and today there were very few fish in that system. The fish are "missing" she said. Katie also recounts problems with the salmon fishery in the Slana River drainage at Bone Creek and King Salmon Creek. Earlier in this chapter we mentioned that Katie had talked about beaver dams blocking up Bone Creek but in her testimony to the Board of Fisheries she says that the salmon are disturbed by the presence of boats, airplanes, and gasoline from outboard motors. She notes that at Mentasta they do not allow outboard motors or airplanes on the lake. Now they do not see many spawned out salmon carcasses around Tanada Lake indicating that there are not very many fish.

Katie John – Ok. You know what, I miss my fish down Batzulnetas that's why I come (to testify at the BOF). We had Batzulnetas fish, we had big salmon we get, that kinda salmon we used to have that kind. So I been fishing there (Batzulnetas) for (the past) three years, I don't dog fish (catch salmon to feed to dogs) just like we used to get. That's a small fish, small salmon that's what we get for (the past) three years. And that Batzulnetas fish they used to call it, I never get it. How did that (come to be) was missing, I just want to find out. And Nick's fish was cut down to and, (discussion on what they call it) Cobb Lake fish, (Cobb Lakes are located along the highway, in Ahtna they are called *Unaydeltaan* (middle Cobb Lake)

and *Men Ce'e* (east Cobb Lake)) that one was cut off too, people don't fish up that way since forty two, we don't fish since '42 that creek. And, that creek, the fish went up to Cobb Lake was cut down to no fish hardly because all that many years people don't fish. Now that's two places with fish missing (Batzulnetas and Cobb Lakes).

I know that, you know, where I stay Mentasta, I move up Mentasta to '37, I move up to Mentasta. I've been living in Mentasta. We had lot of salmon there, we used to be fishing in the Slana River, we had a wheel, we get fish, even there the fish was cut down, fish was slow, that river they close so we don't fish in there no more, we have to go down Copper, Chitina, that's were we fishing all the time. There is lots of places there been fish missing, I never heard no body talk about. From Mentasta up to Slana River, three place fish go up, no more fish right now. We didn't even, I don't even see fish go in those lakes no more to. One is Bone Creek, used to be king salmon and sockeye went up. There is nothing now, no salmon went that way and way up about another King Salmon Creek they used to call that where fish, no more salmon and other creek, there's three creek up from Mentasta up to Slana River there's no salmon come up, used to be salmon in those creeks but now no salmon. Now since Batzulnetas and Cobb Lake there's going to be the same happen. Seems like they're (the salmon) going to (be) gone.

You know what I believe was all cut off those fish gone like that? They even use boat, (in) Tanada Lake they use boat. Cobb Lake, that's Tanada Lake and Cobb Lake that's right close between, close to two lake was, they got all the people moving in and they use boat, day and night, I think they use boat, plane, you know it was something from those oil and fuel in those lake. That's how I think animal been going, fish been going, I mean fish. I miss a lot of fish in those creek where I know used to be. I used to know that Batzulnetas we used to have big salmon. But I didn't have big salmon three years we get few salmon but we don't get like I used to get big salmon before. Just small fish we get, and the Cobb Lake same way, people I asked there, I never been Cobb Lake for long time, people say they don't see no fish spawn by the lake. You know when fish went up spawn after they die. And along the lake you can see fish around, dead fish. You don't see like that no more too. Even Tanada Lake they say they don't see dead fish that much. Mentasta Lake was the same way, we stop that, we stop (the use of) motor, we stop plane landing there for how many years no motor and no plane in that lake. That's the place, lot of things cut off too, (?), docks, everything was good in there. So we, that's what we figure from those fuel things like that with the boat. That's what the animal was a going in those lake. We don't let no motorboat go in that lake no more, we don't let plane land up there no more.

### *Summary*

In the previous chapter we discussed the Ahtna classification of fish. In this chapter we presented data on Ahtna knowledge of the natural history of salmon including salmon distribution, life history, and behavior. We also included observations on changes in habitat that are believed to effect salmon behavior. Note that concern about habitat degradation was a constant theme in interviews with Ahtna elders. Ahtna have extensive knowledge of salmon distribution. They know which species are headed for which spawning streams and the typical timing of the runs. On the upper Copper River Ahtna have named all of the runs of chinook and sockeye salmon that spawn in tributary streams above the Sanford River. These named runs are similar to the salmon stocks recognized by the Alaska Department of Fish and Game. Of these, one of the best known are *natael luugge* or 'roasted salmon fish' bound for Tanada Creek and lake. As Bell Joe pointed out, experienced fishers could recognize *natael luugge* as well as salmon headed for Copper Lake and those going to Mentasta Lake.

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## Chapter Four

# TRADITIONAL SALMON MANAGEMENT PRACTICES



**“Survival is not just a testimony of knowledge, but of effective application of knowledge to management practices” (Feit 1988:76)**

### *Introduction*

Historically salmon were an important food resource to the Ahtna and they developed several strategies to control when and where the harvest of salmon took place, the amount harvested, and the size and condition of the fish caught (cf. Berkes 1999:117 on a discussion of the definition of management). These strategies included: 1) a system of territories or districts in which access to resources was regulated by a clan leader; 2) a system of rules meant to ensure a “sustained yield”<sup>1</sup> by stressing the treatment of salmon, including a conservation imperative not to waste; and 3) timing the harvest effort to ensure the maximum harvest of certain kinds of fish in order to provide specific types of products. Ancillary to timing the harvest, Ahtna created highly efficient and effective harvesting, processing, and storage technologies that will be discussed in Chapters 6 and 7 of this report.

Local “self management” strategies, such as those practiced by the Ahtna, evolve from or out of a community-based system of knowledge, values, and practices. In contrast, state management systems spring from governmental or administrative authority (Feit 1988:74). In self-management systems, management is in the hands of the resource users who adhere to the rules in response to social pressure, cultural mores, and/or ideological conviction. Where there are no institutional mechanisms to force compliance, and where individual autonomy is so highly valued, as is the case in Ahtna culture, it is the responsibility of each adult to abide by the rules. A flagrant violation of a territorial boundary could produce a violent reaction and children were disciplined for making disturbances around fishing sites, but there were no institutionalized sanctions for violating the rules.

Although the Ahtna’s average historic harvest of salmon (estimated at 436,150 fish, see below page 61) was much less than the contemporary commercial harvest of salmon (in 2000 the

commercial harvest was 880,000 sockeye), Ahtna had the technological capability of depleting the resource (see Chapter 5 for a discussion of Ahtna fishing technology). That they did not do this is testimony to the effectiveness of the self-management system; the goal of which was to perpetuate an abundant salmon population.

### *Territoriality and leadership*

One method of regulating the harvest of resources such as salmon is to limit access to harvest areas. By monitoring access to the most productive fishing sites Ahtna bands were able to regulate competition and manage the local harvest for their specific benefit. Outsiders were not categorically excluded, but depending on their relationship to the local leader they either had a right to share in the catch or were granted permission to fish for themselves. Permission to fish was usually granted, especially in times of starvation (Justin 2001).

Ahtna territorial groups or bands are well documented in both the anthropological and historical literature (de Laguna and McClellan 1981; Reckord 1983a,b). The Ahtna themselves recognized three groups: *Atnahwt'aene* or lower and middle Ahtna; *Tsaay Hwt'aene* or western Ahtna, and *Tatl'ahwt'aene* or upper Ahtna. Anthropologists Frederica de Laguna and Catharine McClellan identified eight Ahtna bands each inhabiting a bounded territory over which they had use rights (1981:642).

1. Chitina/Taral band
2. Tonsina/Klutina band (split up at some unknown date)
3. Tyone/Mendeltna band
4. Gulkana/Gakona band
5. Cantwell/Denali band (may not have existed in early 19<sup>th</sup> century).
6. Sanford River/Chistochina band
7. Slana/Batzulnetas band
8. Mentasta band.

Explorers who traveled in the Copper Basin at the end of the 19<sup>th</sup> century noted the strength of territorial boundaries. While traveling up the Copper River Lieutenant Henry Allen was assigned a guide as he entered each band's territory. According to Ahtna elder Andy Brown (quoted in Reckord 1983b:77) Chief Nicolai told Allen "We have law in our village that you can't stay here. You've got to get your own place to stay... We got law here and it's the same all the way up the river." Nicolai then said he would send a man so that nothing happened to Allen

and the guide would tell other Ahtna, ... "They not Russians. Americans look like good people to us. Don't bother them." Then from the next chief other guides would be sent further up the river so that Nicolai's men could return home.

In the summer of 1899 the explorer Rice (1900:97-98) encountered a group of Indians from the upper Tanana River village of Tetlin at Mentasta Lake who told him that they "had no right in this section of the country and were prepared to defend themselves if necessary." Abercrombie (1898:598) wrote that the Ahtna had "by common consent or conquest, divided the valley into geographical districts. Each band keeps to its own territory while hunting and fishing, and resents any intrusion on the part of a neighboring band. It is not an uncommon thing, early in the season, for Indians on one side of the river to go hungry if the salmon running on the opposite side are in the territory of a neighbor."<sup>2</sup> A third observer, a prospector named William Treloar (1898) wrote, "every tribe in that country had their land and knew where the land marks of their boundary was. No other tribe is allowed to go into another tribe's territory without permission or invitation, if they did it meant war."

Holly Reckord (1983a, 1983b) has written extensively about Ahtna band territories. She points out that Ahtna territorial rights were held by common consent and could not be infringed upon without the threat of violence (cf. Reckord 1983b:78). At the same time intermarriage carried obligations to share so that members of several bands might have access rights to a particular territory. Reckord also noted that the hunting areas were often identified with the men of the band while fishing sites were usually identified with the women (1983a 24-25; 45). Each band was closely identified with a core area that included fishing sites, a permanent winter village, temporary hunting camps, and a tributary stream the band used as a corridor to reach the upland hunting areas. As one moved away from this core area, territorial association sometimes blurred to the point that there was a shared "no-man's land" between neighboring bands.

Band territories included a variety of subsistence resources that could be exploited as those resources became available in the different seasons of the year. During the early summer, fishing for sockeye salmon to make *ba'* or dried fish was the main activity. On the lower and middle Copper River, the most productive fishing sites were located on the river's main stem.

On the upper Copper River, and in the western region of Ahtna territory, these sites were located on tributary streams. Virtually every place in Ahtna territory that was used to harvest fish has an Ahtna place name. Clan leaders knew the locations and names of the most important sites within their particular area. When asked if he could name any dipnet locations on the central Copper River, Fred Ewan (Ahtna Tape 107), chief of Gulkana Village, replied “*Ciisi dak’ae*, (dip net sites) lotsa places, everyplace I can name it all the way up you know.” (For a map and list of sites see Chapter 5 on fishing devices.)

As noted above the *denae* or headman regulated access to resources within his band’s territory by giving or denying permission for outsiders to use those resources. In the Ahtna language the word *denae* refers to a wealthy man who was frequently associated with a particular geographic location that included a winter village and surrounding territory. As elder Annie Ewan phrased it, “Big chief, like you call somebody live in a place for years. Like somebody born there and died there in a place, is more important. A rich man” (de Laguna 1960).

The concept of the *denae* is found in other Alaskan Athabascan groups, but what makes the Ahtna unique is that some *denae* had formal inherited chief’s titles. Such titles indicate the long-term institutionalized nature of a chief’s control over a particular place. The explorer Allen noted the presence of chiefs who controlled territories along the Copper River. Nicolai, according to Allen (1887:128),

was the autocrat of the Chittna River and the fishing rendezvous, Taral, whilst between the latter place and the Tezlina this privilege is exercised by Leibstag and Conequanta, the former controlling the lower part; the latter with the largest following of any Athanaana, the upper. The chief among the Tatlatans (upper Ahtna) is Batzulneta, who is a shaman.

Within the Ahtna region there were at least 17 inherited chief’s titles (Kari 1986). A list of the recorded chief titles in Table 4-1 begins with a site on the lower Copper River near Haley Creek and ends with Mentasta. Each name was based upon the place name of the village and the word *denen* (or *deni* in Upper Ahtna) or *ghaxen* (or *ghaxa* in Upper Ahtna). Ten of the titles were in the Lower Ahtna dialect area, four below the mouth of the Chitina River in the Taral area, one was on the lower Chitina River, and five were between the Tonsina and Klutina rivers. The

Table 4-1, Ahtna Chiefs' Titles (Kari 1986:15)

1. *Tats'abaelghi'aa Denen* 'Person of Where Spruce Stands in Water' (chief of village opposite Canyon Creek)
2. *Hwt'aa Cae'e Denen* 'Person of Beneath (the mountains) Stream Mouth' (chief of Fox Creek village)
3. *Taghael Denen* 'Person of Barrier in Water' (chief of Taral)
4. *Ts'es K'e Denen* 'Person of on the Rock' (chief of site on W bank at Mile 127)
5. *C'elax Denen* 'Person of Fish Run Place' (chief of Long Lake/Lakina village)
6. *Bes Cene Ghaxen* 'Person of Riverbank Flat' (chief of Riverstag village)
7. *Sdaghaay Denen* 'Person of End of the Point' (chief of village north of mouth of Chetaslina River)
8. *Tsedi Kulaen Denen* 'Person of Copper Exists Place' (chief of Copper Village, five mi. below Dadina River on E. bank)
9. *Hvt'akughi'aa Denen* 'Person of Area Extends below a Place' (chief of site 1 mi. below Dadina R on w. bank)
10. *Nic'akuni'aa Denen* 'Person of Where Land Extends Out' (chief of Stickwan's village south of Wood Camp)
11. *K'aay Denen* 'Person of Ridge' (chief of K'aina Ck site on Tazlina Lake)
12. *Bendil Denen* 'Person of Where Stream Flows into Lake' (chief of Mendeltna Ck site on Tazlina Lake)
13. *Sday'dinaesi Ghaxen* 'Person of Long Point' (chief of point site near Glennallen)
14. *C'ecae'e Denen* 'Person of the River Mouth' (chief of site near Gulkana R mouth)
15. *Saltigi Ghaxen* 'Person of Saltigi' (chief of Tyone Lake)
16. *Sl'aa Caegge Ghaxen* 'Person of Rear River Mouth' (chief of Slana village)
17. *Mendaes Ghaxen* 'Person of Shallows Lake' (chief of Mentasta)

others were more widely dispersed. Two (Gulkana River mouth and point near Glennallen) are in the area of the Central dialect, three (Tazlina and Tyone lakes) are in the West, and two (Slana and Mentasta) are in the Upper area. This configuration suggests that the Lower Ahtna chieftainships were concentrated at the best salmon fisheries. The chieftainships in the west, north and east were at key nodes on the major trail systems to the upland hunting territories and trade routes (Kari 1986:15, revised 12/9/2000).

The *denae* was at the top of the Ahtna social ladder. He was often the senior male of a kin group or clan and acknowledged for his skill as a hunter and resource manager. He was also known to have “a lot of food.” When asked who was in charge of the fishing, elder Bell Joe (Ahtna Tape 110) replied that

Sanford Charley (a *denae*) used to take care of a lot of people, take care of food, give them something to eat all the time. Not only one place, Mentasta do that, Copper Center, Chitina, any place. He just, (those) who got nothing, they know, they give so much food to people, them days no work you know.

Note that in answering the question Bell talks about how Sanford Charlie fed people and that there were *denae* from up and down the Copper River who did the same thing.

In regards to fishing the primary role of the *denae* was to ensure that enough fish were caught and processed to meet the needs of his followers. He did this by organizing and directing the labor of his entourage of helpers or *-ciile'*, who were young unmarried men that often lived in the *denae*'s house. To optimize the fishing effort the *denae* made sure the fishing equipment was repaired and made ready. During the harvest he monitored the amount of the harvest against future needs and the strength of the run.

In the following paragraph Fred Ewan (Ahtna Inc. 1988:4) explains how his father managed the harvest, and in doing so compared him to a game warden. Fred's father fished with a series of fish traps set into a weir. If too many fish were caught the traps were pulled out of the weir until all of the fish had been processed or eaten. If the runs began to falter the traps were pulled as well. At the end of his statement Fred notes that Ahtna not only managed the harvest of fish but of all the animals, including ducks.

Q: How did your dad control the game?

Fred: Just like game warden, (his dad) watch, control, just control everything, fish too. We got too much one night, have to move the basket. Tez'aani, fish trap. Then we lift it up and we let it go for 4 or 5 days. Then we run out of fresh fish, we put it down again and we leave it there. There's a dam right through, got three holes right in there, three tez'aani, fish trap in there. That's a brush fishtrap. We get fish maybe 10 in one, maybe 5 in the other, and one maybe nothing. And my daddy say, "I think the fish is kinda low, just let it go now." We live by the dry fish then. They lay eggs in there, in wintertime we don't bother, all the way through. Springtime everything laying eggs. We don't bother ducks. We don't bother, too poor to bother. They got eggs too. Only fall time we get ducks. All the same just like we control. We take care of everything just right too, self government, tribal government is what it is. They tell us that's the way it is, and we obey just the way it is

Frank Stickwan (Ahtna Tape 110) describes how the chief *Cuuy*, a *denae* of a large village located near the mouth of Bear Creek, watched over the fishing at a large fish weir site on the Gulkana River. As the fish passed through the weir and were caught in the basket traps *Cuuy* counted the fish by tapping his cane on the ground.

Frank: He (Cuuy) stay (lived) there all the way his life that place by Gulkana bridge. Gulkana River right across.

Tez'aani unaan' dae' fish luk'ae dae' telaxdze', dae' unaan' udahwdeltsiinde tkihi'iisde.

/Fishtraps were across the Gulkana River (near Bear Creek) when the fish ran, they fixed it so it was blocked across.

Tiz'aani tizdlaa ut'aaghe naane'.

/The fishtraps were set below (the weir) and across it (or through it).

Them days no law, xu'eł ts'etnicdze', long time ago dahwts'en.

/Long ago they did not know any kind of law then.

Tiz'aani yii luk'ae tiz'aani yideł de, Little Cuuy unen idetset.

/As the fish went into the traps Little Cuuy tapped on the ground (with his cane).

He work all the time on luk'ae 'utsuughe tadaa'a. He just look in water in there.

/He worked on salmon below and looked in the water below there.

Sometime he (the salmon) come out.

Fish come out and he inu' 'ude łde sometime.

/The fish pass through the openings sometimes.

He (Cuuy) start to holler. Nildaan'tah hollering. Oh big holler he said. yaziil, zel dahwnii.  
/Sometimes he would holler. He would holler to them.

"Natsiide dołae x lu' luk'ae dan'edze' it'aa kaghidaeti'de."  
/"You work down below there, the fish are running and the fish have now gone upstream up against it."

All the people come down and pick them up. No more fish go out that place.

Luk'ae tez'aani yidiitde. Every day ik'edze' xu teyaas tah, iyggeh nakal'iit.  
/The salmon would go in the traps. He would walk upon it everyday, looking down there.

Fred Ewan (Ahtna Tape 107) talks about the difference between catching fish with a dip net – where a person works alone – and catching salmon using a weir and basket trap, that required considerable labor (in this case 60 people) direct by a *denae*, who in this case was the chief *Cuuy*.

Q: Did the fishtrap catch more than the dipnet?

Fred: Well you don' t have to work that hard for fishtrap.

Naa ts'iighan yaen' 'udaa, 'a

/Across there was only one [chief].

Sixty people, Cuuy sixty uciile' ghile' kiitnii.

/There might be sixty people using the weir location downstream. Cuuy had sixty helpers.

Eight wives he had. Yeah.

Yeah, he just watch those fish. He watch the bridge and fishtrap, that's all.

Hwtsiit [the weir]. Anything wrong he holler. "Hey working people come on down.

"Tuutl'ah kaskae' ka tdghasnii', Wey ho ho wey ho ho," he say, Go to work.

"/I am calling for the "boss of the back water." Wey ho ho! Time to go to work"

Some place bay'nilaex. Some places the fish went through the bridge. Yeah. Yeah that's the way it works.

/In some places the fish swim past (the bridge)

So its lota you get. You have to work hard with the dipnet. You all alone you have to work.

In this paragraph Ben Neely (Ahtna Inc. 1988:15) talks about how the *denae* motivated his men to work hard and put up fish.

He (the chief) tell them what to do, have a bunch of young people with him and he tell em what to do. Tell him that the summer going to be fishing. Summer comes just once a year and salmon come just come once a year, so he tell them boys to fish, to put up food. Put up this, so he talk to them to make them big place.

Traditional land use areas have been well documented for the Ahtna (Reckord 1983a,b). Over time, however, traditional clan territories have been supplanted by private property owned by individual Ahtna, and Regional and Village Corporations which received land under the Alaska Native Claims Settlement Act (ANCSA) of 1971. As a result much of the land along the Copper River has become private property and access to the river is severely limited. Village residents often have fish wheel sites close to their communities. Some sites are on individually owned land while others are on corporation land. Regardless of who actually owns the land, fish wheel owners strictly regulate access to their sites. They fish for themselves and their immediate families and distribute any surplus to more distant relatives and friends. If the wheel is idle, and they have permission from the owner, individuals from other communities can use a fish wheel. Clan leaders no longer monitor the harvest of clan members. Instead tribal councils negotiate with the State of Alaska to operate “village fishwheels” for the benefit of elders and other community members who do not have access to fish wheels.

#### *Rules for fishing: practices for a sustained yield*

Holly Reckord (1983b:36) notes that the “Ahtna generally believe that salmon run in four year cycles, but sometimes, perhaps every 30 or 40 years they do not come at all. The result is disastrous.” To ensure a sustained yield the Ahtna followed a set of rules regarding the treatment of salmon that were embedded in a cosmology in which fish, birds and mammals, were recognized as social beings who were controlled by powerful forces, and protected by elaborate systems of rules that men transgressed only at their peril (de Laguna 1969-70:18). Like big game and fur bearing animals, salmon were believed to be sentient beings who freely gave themselves to humans, but only if the rules regarding their treatment were strictly observed (ibid). However salmon and other fish were considered distinct from other animals. There is a concept in Ahtna called *c’uniis*, ‘an animal spirit that can cause sickness’ which means literally

'it takes something' (Kari 1990: 308). Traditionally this sickness comes from the mishandling of animals as they are harvested. The animals that can cause this disease include moose, brown bear, black bear, wolverine, lynx, and the other furbearers. However, some Ahtna elders note that fish and salmon do *not* cause the *c'uniiis* malady (Kari, fieldnotes). While there were many rules for the proper care and processing of harvested fish, it appears that the handling of fish is not marked by the same sense of anxiety and strict taboo as is the harvesting of the animals that can cause *c'uniiis*.

Ahtna mythology relates that it was salmon boy or *Bac'its'aadi* ("the one that is highly regarded"), who told the Ahtna how to handle salmon after he lived with the salmon people for a year (de Laguna and McClellan 1981:647). Several versions of this story are included in this report (Chapter Seven) and a synopsis is presented here. As Kari writes in his introduction to the stories in this report, this is "about death and rebirth with the seasonal cycles" and the Ahtna's stewardship of the salmon. One day while working with salmon a young boy disappears and is taken by the salmon people. In Fred Ewan's version the boy is taken because he bothers a salmon. The following summer the salmon people return the boy to his parents in the form of a small king salmon placed in their dip net. He is then transformed into a boy and talks to his parents about how they are to treat salmon. He tells them that he will return every year in the form of a small king salmon. If they catch him, they are not to club him to death but are to cover his body with down feathers, place him in the fish camp, and then return him to the river. Fred Ewan (Ahtna Tape 107) says that when a person catches a little king salmon "that's really good Indian way," meaning that is good fortune to catch a little salmon. He adds that when "you get it, you gotta save it, you take it outa the wheel, you gotta dry it, you not gonna eat it though. They don't bother that thing [the little salmon]. Other way it if you bother or talk about that [fish], [in a ] foolish way, you go and drown that's all. Fish take you back they say, you know."

Repeated in the story of the salmon boy is a mystical phrase, *dinac'iighiltaenen*, which as literally translated means "the one whom someone has put back inside again." As noted by Kari, "someone" places the salmon boy in the net. In the Christian context this unnamed entity is God, although Fred Ewan says it is the salmon people who return the boy. By doing so the salmon people demonstrate their good will towards humans and their willingness to be caught, but only

if they are treated with respect. Thus a reciprocal relationship is established between humans and salmon in which the salmon return every year.

Martha Jackson (Ahtna Tape 32) talks about how the salmon are to be treated in her version of the *Bac'its'aadi* story. She repeatedly makes the point that there is a direct connection between humans and salmon. How human beings treat the salmon not only affects people's individual harvests but whether there will be any fish at all. She says that the salmon come to those "who work on them carefully," and to those who are not "lazy toward" the fish, in other words those who do not treat the fish in an offhand or careless manner.

Dae' luk'ae 'adii ugheldze' ba hghetnaa de yet yaen'.  
/Thus now the salmon run well only for those who work on them carefully.

Yet yaen' 'ungget uyehts'e' telax.  
/Only then do they swim to someone.

Yet koht'aene koht'aene ts'akut'edze' ba hghetnaa de, 'ele' ugheldze' ba hghetnah den,  
/If the people work on them badly, if they do not work on them nicely,

koht'aene its'e' skudetniiyede, 'ele' its'e' tesdlaxe.  
/or if a person is lazy towards them, then they (the fish) will not run to him.

Koht'aene ugheldze' yaatnaade yet yaen' anoxt'e' 'adii luk'ae luk'ae c'a yii 'adii c'a xu'a kot'aen.  
/It is because of the people who work on them (the salmon) well, that the salmon still exist now.

Ugheldze' ba hghetnaade yet yaen' luk'ae c'ilaen.  
/They work on them well, and that is the only reason that the salmon exist.

Kiits'e' skudetniige 'ele' udatahe ugheli ghileh de, yeldu' 'ele' k'adii kestlaxe,  
/The ones who are lazy, or whose gear is not good, do not have fish running to them at this time.

### *The conservation imperative*

The conduct of the Ahtna fishery is guided by a conservation imperative in which humans are expected to harvest only what they need while minimizing waste. As told in the Ahtna origin story, Raven introduced conservation (see Chapter 8) to human beings when he showed them how to release the salmon into the Copper River. The humans first open the gate for the sockeye

salmon, then the gates for the king, steelhead, and silver salmon. As they open each gate Raven allows only a certain amount of the total stock to be released, saying “that is the right amount of fish to run now” and “that is just enough for a season.”

In the traditional Ahtna worldview, to intentionally<sup>3</sup> waste an animal or fish is tantamount to a sin because this is considered offensive to the animal’s spirit and results in its aloofness, making it impossible to catch. Elder Pete Ewan put it this way “If we don’t treat the animal right that’s been taught to us, we will not get so easy animals”....“if you don’t treat animal, anything right, the fishing, you will never get fish no more....” (Ahtna Inc.1988:3). For this reason Ahtna elders always say they try to limit their harvest to what “they need.” In the following explanation elder Pete Ewan (Ahtna 1988:4) talks about the principle of limiting the catch and the necessity of distributing any surplus that could not be taken care of. He emphasizes that this is a firm rule.

We don’t take, just like right now. Fish and Wildlife and all them law, think we take all we want, they think we take what we don’t need, they think that way (but) we don’t. We don’t take anything that is against our ruling, in history. We don’t kill anything we don’t need. Only when we have, we really need it, and that’s the only time we kill caribou or moose. And fish too, same thing in the fishwheel too. Just what we need. If I get too much, we stop the wheel or give to somebody else.

We tell somebody, we got fish that we can’t use down there. We got too much to work on, get the fish. Okay they come and get them. That’s what we do, it’s against our ruling, we can’t waste them, we can’t waste anything. We gotta have somebody use the meat and fish. Somebody gotta use, somebody gotta eat, some family.

Molly Galbreath and Katie John (Ahtna Tape 111) discussed the principle of harvesting only what you need when they talked about the fishery at *Nataelde* or Batzulnetas. Both women emphasize that the amount of fish harvested was limited by one’s ability to efficiently process the harvest. Once the processing was completed the traps were placed back in the weir.

According to Molly:

They only take fish according to how much fish they can take care of. They don’t just block the fish off. They usually let just so many fish go through while they are busy cutting it. Otherwise you can handle only so many fish. So they leave the fishtrap out (of the weir). When they got done cutting fish then they put the trap back in.

In an interview in 1992 Katie John (John 1992) talked about the misunderstanding some people have about Ahtna fishing. Like Pete Ewan, she points out that people did not harvest all the fish

and leave nothing and that her father, Sanford Charlie, always opened the weirs after taking enough fish to process.

Right now you know that the law told us that those days my daddy and them block up the fish, they say fish can't go up. They used to say. Those days we don't understand, we don't know nothing. White people business those days. That's how they give up those village that time for fishing. And they thought it was, my dad was, they thought he really clean out fish. He don't know, my dad don't know what he doing. But we get about 4 - 5 days fish. Then my daddy open 'em up all that place. And then 4 - 5 days...fish can go by and they work on that fish what they take it out. They work on them. Sometimes seven days they not close it [the trap], and then when they...[get]...some more fish they [close] it again.... That's where my daddy used to keep that fish. He never block it all the way across. That's what they think, this people. That's why they tell me they block up the fish and they not supposed to fish. Those days we don't know nothing [about] what they talk about. But that's why my daddy just give up that time.

To ensure a bountiful harvest and avoid the sickness believed to accompany the salmon on their migration upstream, Ahtna accorded the first salmon harvested certain ritual treatment. As soon as the first salmon was caught, all of the adults at the fish camp took a sweat bath, bathed in a little bit of salmon blood “so you won’t get sick”, put on new clothes, and painted their faces. Feathers were tied to the heads of women and children, “like a sign, so the fish would not make them sick” (quoted in de Laguna 1969/70:23-24). According to the Katie John (Ahtna Tape 46), the fish was then cooked, usually boiled, and willow leaves were laid on top of it, “like parsley”. After eating it was essential that people continue to fish until the run was over, in order to maintain their good luck. Katie also said that during the first salmon ceremony the adults took the milt from the male salmon, went into the willows and bathed themselves with the milt before they ate the first salmon. She said this was done for luck when hunting and trapping “so that things would come to them nicely.” However, Katie makes no mention of doing this to protect oneself from sickness<sup>4</sup>. Underscoring the fundamental nature of the ritual treatment of salmon, is the Ahtna verb theme that is specifically for ritual purification (Kari 1990:436), *O+I+yen*, ‘observe O (a rite), purify O by medicine’, *luk'ae naghilyen* ‘he observed the salmon rite.’ Etymologically, this verb theme is the causative of the verb *D+yen* ‘to act as a shaman.’ In the following discussion Katie John (see Chapter Five for the full narrative of Ahtna Tape 46) describes some of the rules regarding people’s behavior at fish camp, with additional comments provided by Molly Galbreath (MG). Katie makes the point that at the beginning of the season

children were severely restricted from playing near the water or the fish weir, but as the season progressed these restrictions were relaxed. She also notes that children with bloody noses were not allowed to go near the water. That was *engii* for the salmon, meaning it was something that could bring bad luck. At the end of the narrative Molly Galbreath points to several other restrictions to keep the camp “pure”, such as keeping menstruating women off the fish weir or *hwtsiil*, and maintaining a clean camp. She further notes that today some people have not kept Batzulnetas clean and as a result you do not see many fish.

Katie: Sta' "'Utsuughe tabaagga son'o ts'ina'uhdeya', c'enilaek xa' 'engii su tkut'ae.

/My father said, “Don’t go out down there by the beach. When they are running that is forbidden.

\*MG: Boy he was strict, you can’t play in the water, or throw anything in the water.

Snakaey 'otaen dze' k'alii 'utsuughu xu łudzuhyaae.

/You are children and you don’t wander around down below.

Tabaagga ngge' kedgholyaa.

/You stay upland of the beach.

Tuu yii cu son'o tan'uhdeł’.

/Don’t go in the water.”

Yii k'e kot'aex k'alii cu 'utsuugh tabaagga ts'inats'esdaage 'engii ne'ełnii dze'.

/We were not supposed to go out there down below on the beach. They told us that it was “engii”.

“Unaane hwtsiil cu son'o ka'uhya',” ne'ekeniix.

/“Don’t go up across the weir bridge either,” they would tell us.

Nduuy hwneyeli 'eł tah xona niidze c'elaxa 'eł tah xona, yet ta xona 'utsuuxu tabaagga tsinasdadaał.

/After several days, during the middle of the run, then we would be able to go below again on the beach.

Snakaey 'iinn xu'entsiis ta del c'elaex ta yii c'a cu 'engii ghile' dze'.

/The children, when their noses would bleed, that too was “engii”.<sup>5</sup>

K'alii hwtsiil i'eł kalggasi.

/He could not go on the weir

Dzaenn mentsiis ta del xughile'i

/On a day his nose had been bloody

'Unaann' 'unaa hwtsiil gha 'udu'u ł'aen' de', hwtsiil son'o k'ali'i katasyaale,”

/“Watch for him by the weir, he can’t go up the weir,”

Ye snakaey gha keniix.  
/they would tell the children.

Naxu kuhda'aen' xu tket'ae xu hwtsiit i'et katayaa xu'entsiis ta del kolaexi  
gha.  
/So they would watch them, if their noses were bloody and if they would  
go upon the weir.

Yii c'a tuk'ae gha 'engii udatne'.  
/That was "engii" for the salmon, it was said.

Molly Galbreath:

Lotta *Engii* went on that creek too. There's a lot of young girls, can't go  
across that *hwtsiit* (fish weir). And they can't go around the bank and play  
around. And they cannot throw any trash can or nothing in that water.  
Gotta be pure. We go bury our garbage in the woods. Now you go down  
there (Batzulnetas), there is a lot of old trash but you don't see nothing  
(no fish or other animals).

Rules regarding the proper treatment of salmon also extended to the construction and  
arrangement of fish drying racks. According to elder Bell Joe (Ahtna Tape 110) no metal<sup>6</sup> was to  
be used to secure the hanging poles and that the small end of the poles had to point upstream. He  
also explains that if you were careful and did not waste anything then more fish would come next  
year and he notes that today people catch fewer fish because they are not careful how they  
handle the salmon.

You gotta have the right kind of fish rack so fish, he like you that way.  
You get a lotta fish that way. You see that pole with dry fish on top? That  
small end always up northwards, and butt is down below, so you don't  
have to tighten down, you don't have to nail down. When fish come back,  
he take em all, when he start back down to the ocean. All he take that  
thing back, see. And next year he come to your place again. He know  
you take care of him good. That's why he get lotta fish. He [a person]  
don't take care of fish, he don't get fish nothin. If he don't take care, he  
[the salmon] got no use to come to your fishwheel. That's the way old  
timer used to say.

You know long time ago.  
Koht'aenn dastaann, tuk'ae uk'et taggaasi, all udecene' dadaadze'  
dezdlaa xu dit'ae. Udela' dan'edze,  
/The native fish rack poles upon which fish are dried, all the base ends of  
the poles are placed toward the downstream; the tips (the hands) are  
toward the upstream.

When fish dadaa'a natedelde he take all the fish back, all that pole, he  
take em back, that's what he used to say.  
/When the fish are returning...

If you take care good, you treat him good, then he treat you good. Fish you get it lotsa too. That's the way used to be old people tell us.

Everything he used to take care of, all fish eggs, we used to dry, some we leave wet, and we eat just like ice cream. And fish head we dry that one too. Everything we just dry everything. That's why long time ago lota fish [because people used all of the fish]. When you get lota fish, next year you get lotsa [here Bell is saying that the more fish you catch and take care of properly the more you will catch next season]. Next year you get more. Now this time you can't do it. Some time 10 a day 20, that mean he don't take care of fish that's why. Everything he used to have it nice.

Using the analogy that salmon were like money, Ahtna elder Virginia Pete also talked about the importance of handling salmon properly. Along these lines she said that people should take “delicate care” of the fish and not throw them around but carry them “just like a baby.” Salmon were like money, according to Virginia, and if you took care of it, you would always have some. “Take care of what you do,” Virginia said, “take care of fish. First fish you cut, come out good like this one, you going to stay that way all your life. Like now, you take care of your money, put them in a bank. You don't change nothing, leave that money in the bank. That fish is like that too, along time ago fish like money.” In other words, salmon, like money, according to Virginia, would multiply, if you took the proper care. Such delicate care also extended to the poles used to hang the dried salmon on. They had to be trimmed so they were completely smooth. If any rough spots were left, then pieces of fish got caught and it was just like “money gets stuck on it. Wood too”, Virginia said, “you have to trim it nice and clean” or “money get stuck on used to say. Old timer clean everything nice and smooth, if you have this one [nicks on your pole] money never come to you.” The appearance of the dried fish was also of great concern. Parents were cautious about teaching their daughters how to cut fish because they were afraid they might ruin them. Young girls who were first learning how to cut fish sometimes had their work placed in the lower portion of the fish rack so their mistakes would be hidden from view.

Today younger Ahtna often disregard the rules associated with salmon fishing largely out of ignorance. In addition, in part because of the influence of Christianity, some Ahtna elders no longer believe that some of the rules, such as the first salmon ceremony, are necessary. On the other hand, many elders continue to see a direct correlation between human actions and animal behavior and, like Molly Galbreath and Bell Joe, they express concern that rules pertaining to the

handling of salmon and the discipline of maintaining order and cleanliness are not being followed. They are especially concerned with practices that waste fish and they point to the way their parents and grandparents made use of the entire salmon.

### *Timing the harvest effort*

Timing is everything in fishing, and for the Ahtna it was particularly crucial. Historically, food was often hard to obtain in late spring and early summer. Weather has an influence on the timing of the salmon runs, the ability of people to fish, and the production of *ba'* or dried salmon. Hot weather melts the ice and snow at higher elevations, creating runoff that raises the water levels in the streams and rivers that feed the main stem of the Copper River. Rain adds to the flood. As the water rises, the amount of debris floating down the river increases which makes fishing difficult if not impossible. High water can also delay the salmon runs, because the salmon find it difficult to move up stream (Merritt and Roberson 1986:222). The salmon's struggle against the increased velocity of high water may also affect their nutritional value. To avoid these problems, Ahtna historically harvested as much salmon as possible early in the season. Ahtna still prefer to fish from early June to early July.

The early runs of salmon, which are typically headed for streams and lakes in the upper Copper River, are less likely to be affected by high water since the weather in late May and early June is usually dry and cool (ibid. 220).<sup>7</sup> To maximize their effort and produce enough *ba'* or dried salmon, Ahtna traditionally targeted these early runs of sockeye and especially the large, fat sockeye headed for Tanada Creek, called *natael luugu'* ('roasted salmon fish') or "wide meat fish." June and July are also the ideal months for making *ba'* because the warm weather facilitates the drying process, there are few flies, which lay eggs in the folds of the drying salmon, and fewer yellow jackets or wasps which swarm around the smoke houses and eat up the dried fish.

During an interview conducted by Shirley Baker<sup>8</sup> (1921:13-14) in October of 1921 Chief Douglas Billum, known generally as "Doc Billum", talked about the factors that influenced the harvest of salmon. During the 1921 season Chief Billum and his people fished near the mouth of the Tonsina River, between June 25 and August 15. They operated five fish wheels and caught

nine bales of red salmon, two bales of king salmon, and one bale of silver salmon (for a total of between 440 and 460 fish).<sup>9</sup> Chief Billum said they chose this particular fishing spot<sup>10</sup> because there were several big eddies and the conditions were more favorable for operating a fish wheel than in the Tonsina River. But they had to wait until June 25 to start fishing because of debris floating down the river, “logs and turf” that sometimes carried their fish wheels away. Chief Billum noted that the Ahtna from Chitina had fewer problems catching fish because they were able to intercept the early runs whereas he was not. [This was confirmed later on by Chief Comfortjoe of Chitina who told agent Baker that the Chitina people caught all the salmon they needed for the winter from June 13 to June 30 (approximately 4,134 fish, see table 4-3 below)]. According to Chief Billum the first runs of salmon on the Copper River are the biggest. He claimed that he caught more fish the year before (1920) because the ice went out early and the weather was good so they were able to put their wheels in on June 15 and fish the early run. In that time they caught about 920 fish, twenty bales of sockeye, and three bales of king salmon. Chief Billum pointed out that in 1921 the canneries located at the mouth of the Copper River caught more of the late run and so he caught fewer fish.

Chief Billum told Baker that there are only about three weeks in July when the weather is favorable for curing salmon. Baker reported that the Ahtna made no effort to cure salmon after the first of August because they tended to lose all of their fish to the damp weather. Baker concludes, “It is, therefore, the first run of salmon which provides the food for the natives of the river. They catch only a few during the latter part of the season, and these are for daily use” (ibid:14).

### *Selecting salmon based on sex and reproductive condition*

To make *ba'* or dried fish, Ahtna not only concentrated on they early run of sockeye salmon, they also selected fish based on their sex and reproductive condition. Traditionally the Ahtna preferred male salmon to females because the former were larger and fatter. When there were large numbers of fish the females were released but if the runs were poor people kept both males and females. They also preferred salmon in prime condition. For this reason most Ahtna focused their principal effort to catching salmon in the main stem of the Copper River.

In this interview Bell Joe (Ahtna tape 121) tells how all Ahtna along the Copper River favored the Batzulnetas fish and how male salmon were selected over female fish. He intimates that the old people could look at a salmon and tell which were good for making *ba'* and which were not. He also says that when enough fish had been caught the traps were removed and the weir opened up, or the fish wheel was closed down, to let spawning salmon through. This illustrates the earlier point of the Ahtna conservation ethic, in that they take what the need while minimizing waste.

Q: Which fish could you get the most?

Bell: We get mostly Batzulnetas fish. People like that, all the way from Chitina to Copper Center, Gulkana, everywhere. When Batzulnetas got big and heavy, big salmon, everybody loved Batzulnetas salmon.

Q: If they had a hundred fish, how many of them would be *tl'edzi* (male) and how many would be *k'uun'i* [female]; in the days of the dipnet?

Bell: I don't know, he never used dipnet up this way see, he used on Copper Center, I don't know. I was small, I don't see no basket (dip net) around here.

Q: Well Katie (John) said today at Tanada Creek, at [*Nataelde*], if they had a hundred fish, maybe thirty would be *k'uun'i*, maybe seventy would be *tl'edzi*. That they would let the *k'uun'i* go you know.

Bell: Yeah, that's what they do. They know what fish is not too good. Then he let go that one, then he take it out, all good fish. He know, the old people see, just by the look. What are good fish he take out and the rest of the fish he just let them go.

Q: She was saying, if they had enough, it would take them maybe three days to catch a bunch of fish, and then they would take the traps out, let the fish go because they are working on the fish.

Bell: If you're fishing all the day, you get a lot of fish all right, at night you let them go. Then tomorrow morning you use them again. Then you get so many fish, then you let go again. That's the way he used to run. And right now the [Fish &] Game all they think we close everything. No, the Indian they got to have it, you know, the young salmon got to be, to go up to the lake the rest of the salmon. That's the way he used to run a long time ago. Same thing white fish. Lot of white fish coming all right they get about hundred anyway, and he let them go. Let the rest of them go out. And that's the way they used to fishing.

In this brief excerpt Frank Stickwan (Ahtna Tape 123)<sup>11</sup> describes why people selected for male salmon and the preference for early run sockeye. He then names other types of salmon.

Frank: Tl'edzi is male. k'uun'i [female]. They all paired together them fish you know. Tl'edzi what they eat always, was k'uun'i not much, they like tl'edzi better. Too much eggs inside [in female]. Not much they like, and too small too you know. Tl'edzi is big. Little k'uun'i little bit small.

Q: Preferred types of salmon?

Frank: Nulaeggi, [a prime early sockeye] that's same kinda fish. Tl'edzi nilaek (prime male salmon early in run) all good one

Nulaeggi is the best fish, what they call good one like that.

Luk'ece'e is big one [full sized chinook salmon], daes ggaay [Jack king] is about that big, one small little one is bac'its'aadi ggaay [small king salmon].

Echoing Bell and Frank's comments, Katie John (Ahtna Tape 46) discusses the preference for male sockeye salmon. She notes that female fish were taken from the traps and thrown over the weir so they could continue upstream to spawn.

Q: At Nataelde [Batzulnetas], when they got lots of fish, would they get more males than females?

Katie: Tl'edzi [male], K'uun'i [female] they don't care much. Yes, males, they don't care for females much.

Q: What would be the percentage?

Katie: K'uun'i yii kuniis tah, dan'e ts'en tanakiliis.  
/When they get the females they put them back in the water on the upstream side [of the weir].  
Yii du' k'uun' uyii kulaen gha. yii du' xii'et t.nes.  
/They knew that these are the ones with the eggs.

'Ungga Tanaade kanatdet tah, you know that's where k'uun' all dadelaes.  
/When they go on upland into 'water that moves lake', they put all their eggs in there.

Q: If they got 100 fish, how many would be female?

Katie: Probably about 30. Gotta be big one too, the small (female) one they don't care to get when they got enough fish. If they are short of fish, all right, then they get k'uun'i.

Q: Why do they want *tl'edzi* (males)?

Katie: *Tl'edzi* is bigger and more greasy, and *k'uun'i* not too good to eat.

In addition to preferring male salmon, Ahtna also preferred bright salmon that had not yet turned red. In the following narrative Fred Ewan (Ahtna Tape 107) first discusses the difference

between spawning salmon found in the side streams, which Fred called “the ones coming up in water” and bright salmon found in the main stem, which he called “the ones that are moving.” He noted that efforts were placed on catching sockeye in the Copper River. He said that those salmon that have moved into the Gulkana River tasted like the land and had lost much of their food value. Fred then talked about the preference for male fish, which are rich and fat, over females that are full of eggs and do not taste as good. Fred also noted that fish wheels have altered people’s fishing practices. If a female salmon or dark fish was caught in a dip net, the fisher could let it go. But now because fish wheels catch most of the salmon at night when no one is around, people have to keep all they fish they catch. Old fishing practices were in place to “save everything,” so as to ensure the return of the salmon the following year.

Yehwts'en cu xona fish every direction tedet you know, when he hit tuk'ae  
tuu nelggayi yidet de all deldel xut'iix.  
/From there the fish go in every direction. Where they hit clear water,  
they turn red.

Yic'a su 'el' ahwdestnesi, you know kata'ile'i we call you know.  
/That is what I know, they become 'the ones coming up in water'  
[spawning salmon].

Kata'ile'i after deldiil xut'iixdze' not ['ele'] ugheli ghilehi no more you know.  
/We call them 'the ones coming up in water' after they have turned red.

He lose all the taste in it, he lose all the vitamins, you know that vitamin.  
Ukustlaeghi k'et'iis you know.  
/He becomes depleted, worn out.

Yi etcu 'ele' ba ts'uniize xu koht'aene ts'ilaendze' tdu'  
/We Ahtna people don't take these kind.

'Adii cu c'etsitnaey iine, c'etsitnaey iine they don't care you know,  
/Now the white people don't care, you know.

Yedi c'a kec'elaes, all everything, you know xugha ghadghaani tah.  
/They catch any kind, what ever dies on them.

Naene tdu' all good one yaen' uc'a' ts'ehwna'aen, good fish, good  
naghanaayi.  
/For us we look only for the good fish, the good fresh fish.

Naghanaayi is a good, naghanaayi means 'adii dlaedzi, just right now fresh fish.

/The ones that are moving' are the fresh fish, we cook these fresh.

Naghanaayi yii tu' we like only one, you know.

/We like the 'ones that are moving' (fresh fish).

Dae' su danggedze' tedeli cu kata'ile'i u'sdi'aaan, Gulkana River you know.

/They go upland from here, the ones that we call 'those that are coming up in the water', into where we call the Gulkana River.

Deldel xunt'ae all, 'ele' ugheldze' c'a ukalnes.

/Here they are all red and they don't taste good.

U'ei c'a su 'ohtnes, ele' ugheldze' c'a ukalnes.

/If you take these, they don't taste so good.

Nen' ukalnes sunt'ae, nen' yaen' ukalnes sunt'ae.

/They have a taste of the land, they just taste of the land.

Just like a moose, dae' su all good fish yiitdu' naene tdu' gaa C'ulc'ena'

'ele' c'a fish tgho'aene, Copper River yaen'.

/Just as with the moose, we seek only the good fish, and they don't try to catch fish in the Gulkana River, only in the Copper River.

'Ele' c'a tuu nelggayi yii tu' bats'aghit'eh, all yak'a ts'a'it'eh.

/[Gulkana] It does not have the clear water and it is not good for them and they turn poor from it.

Dansghu tedeli all fresh laexdze' all way up to Nabesna kaadel xut'ae you know.

/The ones swimming from beyond [from the ocean] they go up all the way to Nabesna. All good fish you know.

Sas luugge', we call one salmon sasluugge', little one, Natael luugge' is a big one you know.

/We call one salmon sas luugge' [Suslota Creek fish], a little one. And one we call 'wide meat fish', [Tanada Creek fish] you know.

Nelggayi xadghaan you know,

/They have a white appearance.

And some more kata'ile'i, kata'ile'i but it not really just dark, Itsogh adghaan xunt'ae, yii kata'ile'i

/And some of the 'the ones coming up in water', some are a yellowish-orange.

Long as Copper River yi tedelde you know all good fish there you know.  
Like łuk'ece'e,  
/As long as they are in the Copper River, they are good quality fish. Like  
king salmon.

K'uun'i, tl'edzi, tl'edzi is just like łuk'ae koht'aene you know and k'uun'i is  
ts'akae you know.  
/The female, the male, just like people and k'uun'i the one with roe is the  
female.

That's the way naene 'sna'aendze' everything you know.  
/That is the way we look at them.

Yea, k'uun'i łdu' yii ts'aghił'eh. Łu yaen' k'uun'i we never get k'uun'i  
much.  
/The one with roe is not so good. We try not to get too many females.

'Ele' ugheli c'a su dinii' k'uun'i łu' you know. Tl'edzi yaen' tl'edzi łdu' all  
rich rich stuff, greasy everything you.  
/They are not as good, the female. The male are all rich and greasy.

Dae' nt'aeyi gha yii łu' ts'unēs.  
/Ones like that we obtain.

Ciisi k'ae k'e yii k'uun'i ts'unēs tah tanats'ałdeł ts'eł'aen you know.  
/In the dipnet, if we catch female, we throw them back in the water.

'Adii łuk'ae wheel yii ba "use" disendze' da'it'aen nightitme you know.  
/Now when we use the fishwheel for it [for fishing], that happens at  
nighttime.

We have to take it you know, k'uun'i, ciisi ts'eł'aen tah tanats'ałdeł, deldeli  
cu n'eł.  
/We have to take them, the female. But when we use dipnet we would  
throw them back, along with the red ones.

We know k'uun'i you know, tanats'ałdeł cu ts'eł'aen.  
/We know the females and we always throw them back.

Just like we saving everything you know, that's the way Indian  
dghat'aen'dze'.  
/That is the way the Indian do.

Bell Joe (Ahtna Tape 110) reiterates the points made by Frank, Katie and Fred and, like Fred, he  
says that salmon taken out of the Gulkana tasted different from those caught in the Copper River.  
If people wanted that taste then they took fish out of the Gulkana.

That what he used to do, he keep more males, we used to do that, you  
can tell, female or male. Sometime he let the female go. He just throw  
em back in river. Sometime he take em all, sometime he let the female

go. That's why he used to have a lot of fish long time ago. *Kata'ile'i*, (spawning salmon) they let them go. He some time he like to eat different fish, he get it from Gulkana River. Them red fish, little different taste.

### *Harvesting the right amount*

In addition to catching the right kinds of fish, Ahtna also needed to catch the right amount of fish. Frank Billum (Ahtna Tape 112) said "in Copper River they have a limit, like, they go by the winter, how much salmon they use in the winter, and they put same, same, same, same amount up every year like that. Maybe little more sometime." To keep track of the number of fish caught the Ahtna developed a counting system based on one bale of fish equaling 40 to 42 sockeye or 20 chinook salmon<sup>12</sup>. The baling process is described in Chapter Seven.

Once caught and processed the salmon had to be properly stored so that it would not spoil or be stolen by raiders. Storing quantities of fish stretched the period in which salmon were available and provided a cushion against starvation. *Ba'* made during the summer had to last at least eight or nine months, that is from September until May.<sup>13</sup> As a result people went to great lengths to build and conceal their caches of fish (see Chapter Seven for a discussion of caches).

The question arises, how much salmon was enough? In estimating the productivity of pre-contact Native fisheries along the Pacific Coast of North America, including Alaska, Gordon Hewes (1973:134) estimated that 2,000 calories per day was the normal dietary requirement for an individual, although he believed that was low for Alaska Natives. Hewes then assumed that 50 percent of this requirement would be derived from salmon. He also assumed that one pound of fresh salmon contained nearly 1,000 calories (approximately 903 to 915).<sup>14</sup> Hewes, using Mooney and Kroeber's population estimates, estimated 500 Ahtna would consume 300,000 pounds of salmon or 600 pounds per capita a year (ibid:135), or 1.64 pounds of fish per day. That equals 100,000 fish using a factor of 3, the average weight for a processed sockeye salmon.

Hewes cited various historical data on the consumption of salmon in Alaska. For example, Tarleton Bean (1887:93-94) estimated the consumption of dried salmon on Kodiak and Afognak Islands at between 930 and 958 pounds per capita. For Cook Inlet Bean estimated the per capita consumption between 925 to 940 pounds. William Healy Dall (1870:485) estimated that 26,843 Alaska Natives consumed 12,000,000 fish. Hewes converted this to pounds using a factor of five

for a total per capita consumption of 2,220 pounds (p. 139). Hewes also cited the anthropologist Cornelius Osgood (p. 140), who thought, in light of his experience on the Yukon River in the 1930s, that an annual consumption of a 1,000 pounds per capita was not excessive. Averaging Hewes (600lbs), Bean (938 lbs), Dall (2,220 lbs), and Osgood (1,000 lbs) we can estimate an annual per capita consumption of 1,189.5 pounds.<sup>15</sup> This far exceeds contemporary per capita harvests on the Copper River but is close to the harvest levels of modern Nondalton (see Table 4-2), a remote Athabascan community that relies heavily on a mix of salmon, other fish, caribou and moose for subsistence. Note that Hewes' estimate of 600 pounds per capita is below that of Nondalton, which has access to commercial foods.

As noted above, Hewes estimated the pre-contact Ahtna population at 500. Anthropologists working in the subarctic give higher estimates. McClellan (1975:221) believed the aboriginal Ahtna population never exceeded 1,000, while Grinev (1993:54) estimated the pre contact population at 1,500, and Townsend (1980:131) estimated the Ahtna population at 800. An average of these figures yields a pre-contact population of 1,100 Ahtna. Multiplying the annual per capita consumption of salmon (1,189.5 lbs) by 1,100 we arrive at a total of 1,308,450 pounds, or 436,150 fish (dividing by a factor of 3, the average live weight of a sockeye salmon). By comparison, in 1999 the commercial fishery at the mouth of the Copper River harvested 1,682,559 sockeye salmon (ADF&G 2000:2). In 1999, the combined harvest of the subsistence fish wheel fishery, the personal use dip net fishery, and the Batzulnetas fishery was 76,633 sockeye (ibid. appendix G.5).

Table 4-2. Comparative Salmon Harvests for 1987

Date	Place	Number of Salmon Harvested	Total Population	Pounds Per Capita	Percent of Total Harvest
1987	Chistochina	2,053	52	129 lbs	49%
1987	Copper Center	6,627	492 44% Native	103 lbs	59%
1987	Gakona	1,195	208 2% Native	29 lbs	30%
1987	Gulkana	1,296	67 98% Native	86 lbs	
1987	Mentasta	658	77 86% Native	35 lbs	28%
1987	Chitina	1,726	34 51% Native	239 lbs	69%
1987	Tazlina	2,852	364 26% Native	37 lbs	35%
1987	New Stuyahok	22,840	353 99% Native	408 lbs	58%
1983a	Nondalton	53,756	280	768 lbs	65%

Source, Alaska Department of Fish and Game, Community Profile Data Base

a. Data from 1987 was not collected in Nondalton

Government agencies estimated far lower harvests in the early 20<sup>th</sup> century and Ahtna elders recollected lower estimates as well (see Table 4-3). These lower estimates were likely influenced by at least two factors: reduced human populations through disease and the effect of the commercial fishery located at the mouth of the Copper River. Infectious diseases, such as the smallpox epidemic of 1839 and the influenza epidemic of 1918 reduced the Ahtna population. After 1840, population estimates for the Ahtna never exceeded 450 people (cf. McClellan 1975:250-253), so fewer people were harvesting fewer fish. Second, between 1889 and 1905 a commercial fishery targeting Copper River stocks of salmon developed at the mouth of the Copper River (Thompson 1964). In 1915 the commercial fishery was permitted by the United States government to expand into the river and as a result the commercial harvest jumped to 653,402 in 1915, and increased to 1,253,129 by 1919 (Gilbert 1921). There was almost an immediate decline in salmon abundance up river, and by 1916 the situation of the Ahtna had become acute (Thompson 1964:8). To remedy the problem the federal government adopted new commercial fishing regulations for the 1918 season, but stocks were still depressed in 1921, and in September of that year all commercial fishing was prohibited in the Copper River.

In 1921 Shirley Baker (Baker 1921), special agent for the Bureau of Fisheries, was sent to investigate whether the salmon runs on the upper Copper River had recovered from the excesses of the commercial fishery. Baker's report is important because it is the earliest known systematic survey of salmon fishing on the upper Copper River. In October 1921 Baker traveled by train to Chitina and then took a car as far up the Richardson Highway as Paxson Lake. He also made a trip to Klutina Lake and stopped to interview both Native and non-Native fishers at Paxson, Gulkana, Copper Center, and Chitina. Baker learned about harvests at Mentasta, Batzulnetas, Suslota, and Tanada Lake from Mentasta Pete.

Table 4-4 is taken from Baker (1921) and shows a harvest of 22,793 sockeye and 2,146 chinook salmon caught by between 164 and 174 fish wheel operators, which yielded a per capita harvest of 272.1 pounds. According to Baker there was unanimous agreement that the runs in 1921 were better than the two previous years but they were still considered "inadequate" by local residents. At the time the entire population for the Copper River Basin, as recorded by the 1920 U.S.

**Table 4-3. Recollected Ahtna salmon harvest levels.**

Source	Approximate		Place	Amount described by interviewee	Estimated
	Time Period	Number of sockeye			
ISER Tape 14	Before 1950		Klawasi Na'	30 bales <sup>a</sup> of salmon; 100 steelhead	1,260 sockeye
ISER Tape 12	Before 1934		Chistochina	50 bales, fish in ground, salted	2,100 sockeye
ISER Tape 12	1934 - 1944		Batzulnetas	60 bales of salmon	2,520
ISER Tape 12	After 1944		Chistochina	300 salmon	300
ISER Tape 15	1917		Tazlina Lake	One bale of fish	42
ISER Tape 4	1916-17		Copper Center	500-600 salmon	550
ISER Tape 4	1911		Copper Center	1,000 salmon	1,000
ISER Tape 4	1940s		Mile 105 Richardson	200 - 300 salmon	250
ISER Tape 28	1925 -1942		Riverstack	100 bales of fish; 5 bales of king salmon	4,200 sockeye
ISER Tape 28	1932 - 56		Chitina	10 bales of sockeye and 2 of coho	420 sockeye
ISER Tape 31	After 1910		Tyi sla'a' (Billiums)	40 bales of salmon	1,680 sockeye
ISER Tape 21	Before 1937		Chitina	8 families - 700 fish each	5,600 fish
ISER Tape 16	Before 1937		Horse Creek	500 salmon, 50 chinook	550
ISER Tape 16	After 1958		5 Mile (Chitina Airport)	187 sockeye and 5 Chinook	192
ISER Tape 17	Before 1960		Chitina	1,000 salmon (also steelhead and coho)	1,000 sockeye
ISER Tape 20	Before 1948		Gulkana Airport	Over 2,000 salmon, 80 bales	3,360 sockeye
ISER Tape 20	After 1955		Gulkana Village	200 salmon - fishwheel not in a good place	200
ISER Tape 29	Before 1942		Batzulnetas	70 bales of salmon	2,800
ISER Tape # unknown	1932-1945		Gakona	30 to 50 bales depending on the year	1,260 - 2,100
Ahtna Tape110	1940s		Gakona	800 fish in one night	
ISER Tape # unknown	1910		Suslota	40 bales of salmon	1,680 sockeye
ISER Tape # unknown	Before 1940		Simpson Hill	1,000 fish	1,000 salmon
ISER Tape # unknown	Before 1952		Gulkana Airport	75 bales of sockeye and 20 bales of chinook in a peak year	3,150 sockeye
ISER Tape # unknown	Before 1944		Gulkana Airport	20, 21 bales, some people get 50 bales, "smaller family gets less fish"	840-2,100 fish
Ahtna Tape 119.1	Before 1930		Batzulnetas	50 bales of salmon	2,100 salmon
Dept. of Commerce	1917 <sup>b</sup>		Dry Creek - Gakona	400 salmon	400
Dept. of Commerce	1917		Dry Creek - Gakona	10 fish wheels had a average of 50 salmon	500 salmon total
Dept. of Commerce	1917		Copper Center	17 fish wheels, 4,080 sockeye, 507 chinook	4,587 salmon

<sup>a</sup> One bale of sockeye salmon was made up of 40 or 42 fish.

<sup>b</sup> 1917 was considered a poor year for fishing on the upper river because of the activities of the commerial fishery on the lower river

Table 4-4, tabulated salmon harvests for Ahtna in 1921.

Name	Place	Sockeye	King	Coho	Comments	1920 Harvest	
						Sockeye	King
Sour Dough Jim	Gulkana Lake (Paxson)	265	100	0	Fair	170	45
Fred Nichols (nn)	Gulkana Lake (Paxson)	300	125	0	Adequate		
Little Stickman	3 mi. below mouth Gulkana R.	57	21			19	15
Snell Ketting	Above mouth Gulkana R.	219	75	0	caught few fish in 1920		
Gulkana Jean	4 mi. above mouth Gulkana R.	185	86	0		75	20
Tazlina Pete	Below mouth Tazlina R.	75	17	0			
Mary Craig	Copper Center	468	60	0	Sold to road house, fed to dogs		
Skookum John	Copper Center	250	50	0			
McKinley George	Copper Center	450	100	0			
Henry Allen	Copper Center	200	25	0			
Copper Center Pete	Copper Center	20	10	0			
Frank Ewan	1.5 mi. above Copper Center	27	18	0			
Chief Jackson	Copper Center	120	60	0			
Charlie Underwood	Copper Center	225	120	0			
Chief McKinley Jim	2 miles below C.C.	420	110	0	Caught 45 salmon in August, Klutina Lake		
21 Ahtna who used Chief McKinley's wheel		252	105	0			
John McCrary & McCloud (nn)	Above Copper Center	1,500	750	0	Dried 300 fish, rest fox feed		
Tosina Tribe	2.5 miles below mouth Tonsina R.	360	80	40		800	120
Chief Cornfort Joe	Chitina	1,400	125		Had two wheels		
Tory Pete	Chitina	400	19				
Eskilla	Chitina	800	45				
Dick Eu Franey	Chitina	500	25				
Joe Goodlatal	Chitina	500	20				
Tom Bell	Chitina	300	0				
Mentasta, Batzulnetas							
Suslota, Tanada Lake		14,500a		50 to 60 men fishing, info provided by Mentasta Pete			
Total		23,793	2146		For winter use, dog feed, trade		

Source S.A. Baker 1921

a Reported as 14,000 to 15,000 salmon, primarily as sockeye

census, numbered slightly over 1200. Using these figures the per capita harvest would be 21 fish per person, a far cry from earlier estimates.

As the table indicates, Ahtna caught most of the salmon, only four non-Native fishers are represented on the table: Sour Dough Jim, Fred Nichols, John McCrary and McCloud. According to Ahtna accounts, the majority of salmon, approximately 14,500 fish, were harvested on the upper Copper River in the Slana and Tanada Creek drainages. The next highest harvest occurred on the middle Copper River around Copper Center where approximately 5,340 fish were caught. Those people fishing at Chitina and below the mouth of the Tonsina River harvested a total 4,574 of salmon while the smallest harvest took place around the mouth of the Gulkana and Tazlina Rivers, where a total of 735 fish were caught.

Since the 1920's, a number of factors have influenced Ahtna harvest levels including regulatory restrictions, the influx of a large non-Native population, the availability of alternative sources of food. After World War II the Copper River Basin became accessible by road to the population centers of Anchorage, the Matanuska Valley, Fairbanks, so that today Ahtna are no longer the only salmon fishers on the upper Copper River and they now compete with thousands<sup>16</sup> of non-Natives who come to fish in the river every summer. In addition, regulations implemented by the State of Alaska in the 1960s have restricted methods and bag limits. Much of the land along the Copper River is now private property so people's access to good fishing sites is limited. Finally, many of the old and best fishing sites have been lost to erosion and changes in the course of the river and because access to the river is limited additional sites have not been located. As a result there are fewer and fewer good fishing sites available to Ahtna.

In the following narrative Katie John (Ahtna Tape 46) begins by saying that at a minimum her family needed more than 50 bales (2,000 sockeye) to sustain them through the winter. She notes that her parents dried "probably a thousand," although later on she indicates that they often dried up to 3,200 fish, or eighty bales, which constituted enough of a surplus to allow for some salmon to be exchanged for dried whitefish from Athabascans living on the Upper Tanana River. This harvest is in addition to fish consumed fresh during the actual fishing season and fish fermented for later use. Katie also points out that fish was a major staple, supporting the assumption that

perhaps 50 percent of calories came from salmon, but people also relied on other resources, such as land mammals, small game and birds.<sup>17</sup>

Q: How many salmon?

Katie: Łuk'ae we get probably a thousand, that's all ba', I don't count the dzenax (fermented fish) fish we use. We had forty fish in a bale. We dry forty fish, ba', and we make bale. We tie up with brush, we put 20 this side and 20 this side and we put together and we tie up. And my mother and my daddy they use to have about 80 bale, 40 (fish) each. And some time if they got good year, they get about 80 bales. In a bad year some time about 40 or 50 bales. That's not enough for winter.

Q: When did they give some to Tanana people?<sup>18</sup>

Katie: If they got 80 bales, all right then they send some over there, Tanacross used to be hard time, I see my mother sometime she send two three bale they send over. And dry meat. And I don't know how many sack they send over. Over there they pass around to people. Sometime they got nothing to eat.

Q: So you look for 80 and then start trading. Did you get dry fish from the Tanana?

Katie: Yeah, Emma Jonathan's mom is my daddy's aunt. Their mom are first cousin, so she always went over the two aunt and one uncle at Tanacross, and he bring dry fish, and he bring whitefish grease. Tsabaey ghe' [whitefish grease]. And they put those berries, they call denes, (bear berry) they mix up with that one, they mix up with wild gguus (celery).

Inside of those birchbark k'ey ts'aac yit kiilaes dze' denes 'et kiitanelaes. /They put them in birchbark baskets and they mix in the bearberries. And my daddy bring it back, boy I use to like that. That come from Tanana River.

We stay down at Banzaneta, but we like fresh fish, some time we come up to fish at Mentasta. We don't stay too long, we don't get much, just enough for a couple of months.

Q: What was the amount of meat compared with fish?

Katie: They got more fish than meat. You know hard to get sometime game. They got more fish than meat. They dry everything porcupine, Tseles [ground squirrel], they dry, they smoke it, they put it for winter. Can stay in cache all winter. Springtime was the hard time. They got ducks, everything. When caribou coming, that's time my daddy start killing caribou and they start smoking for summer.

Elder Gene Henry (Ahtna Tape 119) discussed the number of salmon he and his family caught at Batzulnetas in the 1920s and 1930s, and he reiterates the point made by Pete Ewan and others that nothing was wasted. He notes that too much was harvested the surplus was given away to relatives and friends.

Q: How many bales of fish did you used to get?

Gene: Well, fifty pack of salmon what we get (2,000 fish).

Q: How many salmon were in a pack?

Gene: 40 in a pack.

Q: What did you do, how did you fix the salmon, what did they do to it?

Gene: After he dry we tighten together forty salmon. We leave it for winter. That's the way we do it. Besides that we got them fish bone [dried backbones], all we use them too, everything out of the fish wheels. We never lose anything; we got quite a few fish but we all taken care of. That's the way the old people used to do it. Our old people, like the way we kill meat, we all save them, we don't lose piece, if we got a little over some kind of meat we give it to our friends. We got friend in the village, we give some if we got a little too much. That's the way we living a long time ago, we never waste anything. We use everything we get then. That's what we do all the days a long time ago.

Note that Katie John and Gene Henry refer to the harvests of their respective families, so combining the two harvests (3,200 and 2,000) equals 5,200 fish. Neither Katie nor Gene mentions how many people were in their respective families or how many people lived at Batzulnetas at the time.<sup>19</sup> A group photograph taken in 1937 at Batzulnetas (Kari 1986:74) shows 19 people while another group photo (ibid. 103) taken in the same year at *C'ecaegge*, or 'River Mouth' at the confluence of Tanada Creek and the Copper River, shows an additional 18 people for a total of 37 residents. Using these estimates, roughly 140.54 fish per person or 562 pounds per capita were harvested, slightly below Hewes' number of 600 pounds per capita and far below the 1,189.5 pounds we estimated for the pre-contact Ahtna. The 562 pounds only includes dry fish and not fresh or fermented salmon.

The production of *ba'* was completed by the middle of July and Ahtna living on the middle and upper Copper River then left their fish camps to hunt and gather in uplands where they harvested ground squirrels, moose, caribou and sheep. Some Ahtna bands camped around lakes where sockeye spawned and harvested spawned out salmon to make additional products, such as

fermented fish. In this narrative Katie John (Ahtna Tape111) explains how, in August when up at Tanada Lake, they harvested a few spawned out salmon to eat fresh and to make dog food.

Q: How long till the fish turn red? When is that?

Katie: September they start red, some time some kind a year August middle start little red. I don't know why.

Q: Did they use those red fish?

Katie: When he coming to red, they call dadzaasi. They take a little bit, not too much.

Q: Would they just cook em fresh?

Katie: Yeah just cook em fresh. Sometime they roast, good for roast those old salmon. When you boil it's not too good. They split it and use it for dog food.

Q: How did they get em?

Katie: Up there at Tanada Lake that's the time (September) all in that lake, that's where all red one come up. And he just die right there. When we stay there boy lota bear all the time.

Q: If they put up dog food, how did they do that?

Katie: They just split it and hang it in the rack. Just split it whole piece and hang in rack. That's what they use for dog food.

## *Summary*

In this chapter we looked at the Ahtna system of fisheries management. Historically, Ahtna management was based a socio/territorial system in which a *denae*, or clan leader, had the ability to regulate competition by limiting access to resources within his territory. In part, a clan leader's authority rested on his skill to ensure the welfare of his people. To this end, the *denae* directed the construction and maintenance of equipment, such as fish weirs and dip net platforms, and instructed people when to begin and stop fishing. He also calculated harvest needs using an accounting system based on the bale. Apparently the size of the bale could vary, but most Ahtna elders agree that one bale of sockeye salmon contained about 40 dried fish. In recent years the Ahtna system of land tenure has shifted from clan to largely corporate ownership and control. Within this system individual families now manage their own fish sites by regulating access, deciding when to fish, and determining harvest levels.

To ensure a sustained yield Ahtna follow a set of rules regarding the treatment of salmon that spring from a worldview in which fish are recognized as sentient beings who allow themselves to be caught if they are treated properly. According to oral tradition, Ahtna learned the rules for the treatment of salmon from *Bac'its'aadi*, the boy who went away to live with the salmon and was later caught in a dip net. The story provides instructions covering many aspects of salmon fishing, and serves as a powerful metaphor for the interrelationship between salmon and humans.

Timing the harvest is crucial to maximize effort and the production of *ba'* or dried fish. Ahtna fish primarily in June and July, when the weather is hot and dry, and favorable for drying fish. Fishing in June and July, Ahtna also target early runs of sockeye and especially the large, fat sockeye headed for Tanada Creek, called *natael luugu'* ('roasted salmon fish') or "wide meat fish." Traditionally, there was a preference for male salmon because they were larger and fatter. When there were large runs the females were released but if the runs were poor people kept both males and females. Ahtna also preferred salmon in prime condition and therefore fished primarily in the main stem of the Copper River. In addition to catching the right kinds of fish, it was also important to catch the right amount of fish so that people would have enough to eat but avoid wasting fish.

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**Chapter Five**  
***NATAELDE LUK'AE NILCEDI***  
**'Putting up Salmon at Batzulnetas'**  
Narrative on Upper Ahtna Fishing told by Katie John of Mentasta  
Recorded and Translated By James Kari



Plate 5-1. Katie John sitting next to a *tseldii* she made. Photo Bill Simeone

***Introduction***

James Kari originally recorded this 30-minute narrative by Katie John on May 31, 1984 in Mentasta. A partial draft translation was done in 1986 and was included in an affidavit by James Kari for the Native American Rights Fund and the case *Katie John et al. vs. the State of Alaska*. The 1<sup>st</sup> draft transcription and translation was completed on June 26, 2000 for the *Copper River Subsistence Salmon Fishery Evaluation 2000 and Traditional Knowledge Project*. The draft and tape were sent to Katie John, with a copy to Molly Galbreath. The 2<sup>nd</sup> draft was reviewed by Katie John and Jim Kari on July 20, 2000 with further annotations and changes noted within [..]. The 3<sup>rd</sup> draft is supplemented by other recorded comments by Katie John and Molly Galbreath on the *Nataelde* fishery. The narrative is a classic of ethnographic description, and primary source on the deeper cultural values of the Ahtna food quest. The narrative has been divided into

6 sections beginning with a description of the construction of the weir, followed by a brief account of the first salmon ritual, and then a description how to process and prepare fish. Towards the end of the narrative Katie talks about the use of the *tseldii*, or reverse current trap, used when salmon refused to go into the trap set in the fish weir. Katie ends her narrative by talking about storing the fish traps at the end of the season and the preparation of *Dzenax*, or whole fermented fish, which was eaten during the fall and early winter.

The Tanada Creek fishery has been documented several times and with Katie John's narrative it becomes the single best-documented Ahtna fishing site. Allen provided an account of the arrival of salmon in June of 1885 (Allen 1887:67). Thompson (1961:33) noted that Tanada Creek

for many years supported a considerable native fishery near the village of Batzulnetas, where barriers were constructed to impede the ascent of salmon to the spawning grounds and lead them into crude but effective traps. Red salmon originating in Tanada Lake are exceptionally large at maturity.

The unpublished archaeological survey of Batzulnetas by BIA ANCSA (1993) contains a thorough accounting of the layout of the site of *Nataelde*.

Katie John and Molly Galbreath state that the use of weir and fish traps for salmon ended at Mentasta in the 1920s, but continued at *Nataelde* until about 1943. In the early 1940s the federal government improved the road leading to the Nabesna Mine, which passed near *Nataelde*. Katie John remembers that soon after the road opened a game warden appeared and told her father that he was no longer allowed to use a fish trap in Tanada Creek. Katie said

My Daddy had always used a fish trap. My Daddy blockup the creek and catch fish.<sup>1</sup> Then he open it up and let the fish go, then close it up, catch more fish, then open it, and let the fish go. Every year he do this. The fish always come back. Now this warden tell him something, and my Daddy don't understand. He feel bad. My daddy left Batzulnetas (John 1999).

After that, Katie and Molly used fish wheels down on the Copper River near Slana. They still fished occasionally at *Nataelde* on Tanada Creek using a combination of gaffs, dipnets, nets, and hook and line, but by the mid-1940s the Upper Ahtna had shifted their primary efforts to fish wheel sites located at the Mentasta Lake outlet stream.

## *The Narrative*

*Recorded with Katie John on 5/31/1984; Tape AT 43: begins at 1.30, goes to 32 min*

### **1) Preparing the weir and fishtrap at Nataelde**

Sta' 'iinn xona snaan 'iinn 'eł ta łuk'ae gha ta gha hghatna'i gha nahwgholnigi.  
/I am going to tell about how my father's and mother's people worked on salmon.

Nataelde sii du' sc'aen ghałe'de snaghał łuk'ae gha hghatna' .  
/At 'Roasted Salmon Place' (Batzulnetas) when I was a child, they worked on salmon in my presence.

Saen kulaes xona łuk'ae 'ets'ehwdilzesi 'eł natsii Nataelde Natael Na' tes naann' hwtsiit hwtsiit nahghil'a'.  
/When it became summer, when the salmon season began they would put a fish weir down there at 'Roasted Salmon Place' across 'Roasted Salmon Creek' (Tanada Creek).

Hwtsiit 'unaann' na'aaxa ktot'aex.  
/The fish weir would be right across out there.

Xona łuk'ae gha nihko'aas de.  
/Then they got ready for salmon there.

Sta' snakaey ts'ilaen dze' c'ael 'uka stanelaes.  
/When we were children my father would go out for the weir stakes.

Tsets, tsets baay ggaay xuytah negha tanitnetsiit dze' 'alden niidelii' dze'.  
/He would chop down sticks, small grey dry sticks for us and pile them up in one place.  
\* MG states that Rufus Creek is a good place to gather these. The stream was also good for Dolly Varden.

Yii yincdettl'uul dze' nasdelyiis.  
/He would tie them together and we would carry them back.

Nasdelyiis dze' 'utsiit Tes K'et kenasdilyaes dze'.  
/We would carry them back, we brought them to 'On the Hill'.

Dzaenn xu' ktot'iix  
/We would do this all day.

Ts'iit dzaenn gaa da ts'i'aa ba'aadze nisdelaes.  
/In one day we piled them up here outside.

'Unaann' hwtsiit na'aaxdze' sta' 'icihwdełkey dze' kank'aay'tnelkey.  
/Across the way my father would sharpen the ends (of the poles) and he hewed them (until they were) sharp.

Ya'ak'ae xona 'unaane' hwtsiit gha daniists'en naann' ta skenetguuc xu t'iilliis .  
/After that he embedded the (c'ael) poles across on the upstream side of the weir.

Tiindetsiyde tintsinyełtsiit.  
/He set them (poles) in the water and pounded them in.

'Ughatgge lu kankusdaan xu tkut'ae.  
/There were openings in between them.

Gaahwk'e c'a kankusdaan.  
/The openings were this large (6 to 8 inches).

'Unaann' xu' hwt'ae'dze' yeliis dze'  
/He does this all the way across, and

Xona snaan du', tisdlaesi ta tseh tisdlaesi keydelaaxa yihw yii ta naydetl'u'.  
/Then my mother tied in the cross-pieces, the previously existing grating (from the year before).

Xey, ts'abaeli ughey' yii cu 'uka teyaas, snaan.  
/She would go for the roots, the spruce roots as well, my mother.

Naxaetineldełde xey.  
/She would pack back spruce roots.

Inesuu' dze' nan'dzindelc'el dze'  
/She would scrape them (scrape the bark off) and split them and

i'eł kutl'uuli k'eh tah ya ideghiix.  
/she would use them later as lashings.

Xona ni tisdlaesi tah nandetl'uu'. Tez'aann yii c'a i'eł tez'aann nandetl'uu'.  
/Then she would tie in the grating to the weir. And she would also tie the fishtrap in with these (lashings).

\*MG: Probably she was repairing the trap; almost every year they had to rebuild the trap.

Yet xona, "K'ay', k'ay' cu 'oht'aas," ne'elnii dze'.  
/Then she would tell us, "Willows, you (pl.) cut some more willows."

K'ay' gha tits'edeł dze' snakaey ts'ilaen dze'.  
/We would go out for willows, we the children.

K'ay' tah ts'et'iis.  
/We would cut willows.

K'ay' ti xugha ficents'iidelaes.  
/We would gather the piles of willows for them.

Yii ghe niłcii niłcii nankeytneftl'uu', niłcii [KJ: nankiidetsiy] nankiitneftl'uu'. .  
/They would tie them together by the ends, they would tie them by the ends (into bundles).  
[they would bundle them...]

Sudelcaax xu' t'ghiliis.

/She had made them just big enough.

\* MG: These are cut to the length of the weir.

Yii nandaen 'idighitnaes 'unaann' hwtsiit tes naann' skedinic'et kot'aex dze'

/These (willows) were the same length as the weir so that they would reach across.

Xiiciit xiiciit iciit naytnele' dze'.

/She would splice them on the ends (making them longer).

'Unaann' xona 'unaann' kedighitnaes xu' t'aex 'et xona.

/They would be long enough to reach across the way then.

*Later inserted by KJ:*

T'aan' delghaeli hdet'uu' unaann' skedinic'et.

/Then they would tie on the "bundled brush" [the drag brush to fill the gaps in the weir and extended it across.]

They got t'aan' delghael [bundles of brush] they put it way in the water. Way down in the water and this tesdlaesi [grating] go between that c'ael [up right stakes]. C'ael first and then tesdlaesi they put. And that t'aan' delghael [bundled brush] is down the bottom. And this stuff go through that c'et'aan' delghael. You know they tie up. They use willow for that. And they go through, this stuff go through, they push it down and all this stick go down and hold it down there. And don't float it out. That's what tesdlaesi [grating] mean ["objects in the water"].

Taeghe naann' tekiitetiis.

/Then they put it in the water across there.

'Unaann' 'uyggu taeghe naann' skedec'iit tkut'aex dze'.

/As it was stretched across down in the water,

Igge' kiide'iits dze' 'uyggu, c'ael t'aax naann' c'ael t'aax naan' tah skekiideyuus.

/They stepped down on it and they pulled it beneath and across the [c'ael] weir stakes.

\*MG: The tisdlaesi is being stepped on, pushing it down through the c'ael stakes. It took a lot of men to do that.

Yii du' 'utgga tisdlaesi uk'et tedelaax dze' tisdlaesi decenn' utah ndez'aa xut'aex.

/Then up above on the horizontal grating sticks the vertical grating went through them.

Yiidu' tisdlaesi k'ali'i u'et datggehde' li'i u'et kantadesdaxa.

/These grating [sticks] are so that they won't move up above in the water.

K'ali'i kandesdaxa.

/So they would not move in the water.

Utah tisdlaesi ts'eyii k'ay'tah nde'aax ughatgge.

/Willows extended in between through the grating.

Taeghe naann' skedini'aa dze'

/It extended across in the water.

Yi tisdlaesi igge' ugha' tidezdlaa xu t'aexi gha [tuu] c'eyii k'ay' 'unaann' xu' keł.tkiisiix.  
/They fixed willows down below across the grating in the water and against them.

Ya'ak'ae xona tisdlaesi xiit'aax tedelaes dze'.  
/Afterwards then they put them beneath grating.

Xona tez'aann yii cu xona xiit'ax xiit'ax tilaes.  
/Then they installed the fishtraps into the openings (in the weir).

Tez'aann du' dae' [KJ: taagga] denc'ii xael 'enaghalt' aey łuk'ae yii uyilax xu t'aexi tiz'aann ce'e kiitnii.  
/A fishtrap could hold up to [three] four packs of (dry) fish when they swam into a big trap, they say.

Yii 'unaann' xiit'ax tiliis dze'.  
/They put them across the opening.

## **2) The beginning of the fish run.**

Łuk'ae dats'ii li'i 'istliiye dze' xona tez'aann tekeliis dze'.  
/While the salmon are still absent they installed the fishtrap.

'Utsii xiik'et tsinanaexdi[daas].  
/Then he (Sanford Charley) would go back and forth to the water watching.

Tetsde 'el sacagha 'el sta' 'utsii ya tsinadidaas xot'iix [hwtsiit gha].  
/At night and in the morning my father would go back and forth to it [to the weir] down below.

Xona tez'aann yii łuk'ae lax kadel'iis.  
/Then he would see some salmon swimming into the trap.

Sacaande su łuk'ae kadel'iis dze'.  
/In the morning he saw some salmon.

'Unuuxu 'unuux hwtsiit tah dze' hwtsiit k'eh dze' ziił.  
/On the other side on the weir fence, on the weir, he would holler.

"Wey xoo xoo! wey xoo xoo!" nii.  
/ "Wey xoo xoo! wey xoo xoo!", he said.  
\*KJ: This is a special call only used at the start of the salmon run to announce the run to the whole village.

Yet c'a xona c'elaxde tseh c'elaxde xu' xiigha dahwdighi' aen'.  
/When they were running, when they first were running, he would give this signal to them.

C'enilaek li'i hwdesniidze' xu' keziił.  
/When the fish run arrived they did not say anything, but they would holler like this.

Yii gha' koht'aenn ku'et denes, koht'aenn 'iinn 'et ketniisi c'elax dze'.  
/That's how the people would know, the people would know that the run had started.

"Xona nacnilaek nanae' luk'ae gha kezel.  
/"Now they have swum back upstream, they are hollering for the salmon.

"Łuk'ae dighilaek," kenix.  
/"Salmon swam in," they said.

Yii txo 'et xona dzaenn 'et gha dzaenn hwteziit dze' luk'ae ketsidelyiis dze'  
/So then all day long, all day long salmon were pushing up there (into the trap).

Sta' ""Utsuughe tabaagga son'o ts'ina'uhdeya', c'enilaek xa' 'engii su tkut'ae.  
/My father would say, "Don't go out down there by the beach. When they are running that is forbidden.

\*MG: Boy he was strict, you can't play in the water, or throw anything in the water.

"Snakaey 'olaen dze' k'alii 'utsuughu xu łudzuhyaale.  
/"You are children and you don't wander around down below.

"Tabaagga ngge' kedgholyaa.  
/"You stay upland of the beach.

"Tuu yii cu son'o tan'uhdeł."  
/"Don't go in the water."

Yedan'a tuu ts'unighiniigi dze'.  
/Long ago we liked the water.

Tuu yii tanats'el'uuł xu' yaen' t'ahwghit'iix.  
/We always used to swim in the water.

Xona c'elaxa sta' ""Ene!" ne'elnii dze'.  
/But when they [salmon] were running my father would tell us, "Don't do that!"

Yii k'e kot'aex k'alii cu 'utsuugh tabaagga ts'inats'esdaage 'engii ne'elnii dze'  
/We were not supposed to go out there down below on the beach, it was ""engii" [taboo].

"Unaane hwtsiit cu son'o ka'uhya'," ne'ekeniix.  
/"Don't go up across the weir bridge either," they would tell us.

Nduuy hwneyeli 'et tah xona niidze c'elaxa 'et tah xona, yet ta xona 'utsuuxu tabaagga tsinasdadaat.  
/After several days, during the middle of the run, then we would be able to go below again on the beach.

Snakaey 'iinn xu'entsiis ta del c'elaex ta yii c'a cu 'engii ghile' dze'.  
/The children, if their noses would bleed, that too was ""engii".

K'alii hwtsiit i'et kalggasi.  
/He (a child) could not go on the weir.

Dzaenn mentsiis ta del xughile'i.  
/One day his nose had been bloody.

'Unaann' 'unaa hwtsiit gha 'udu'u f'aen' de', hwtsiit son'o k'ali'i katasyaale,"  
/"Watch for him across the weir, he can't go upon the weir,"

Ye snakaey gha kenix.  
/They would tell the children.

Naxu kuhda'faen' xu tke't'ae xu hwtsiit i'et katayaaf xu'entsiis ta del kolaexi gha.  
/So they would watch them, if their noses were bloody and if they would go upon the weir.

Yii c'a tuk'ae gha 'engii udatne'.  
/That was "engii" for the salmon, it was said.

### **3) The onset of the salmon run**

Gha tseh c'elaxde yet cu tsae'tseh xa'xu xanakenac'uzelnic  
/I omitted telling about when the fish run first began.

Tseh c'elax de, dic'elax.  
/When they first ran, they ran into the trap.

Tez'aann yii c'elax, tiz'aann xii'et ka'aas.  
/They would swim into the trap and they would pull it out.

*Inserted by KJ from July 20, 2000, 7-20.*

They loosen back this stuff [rear end of trap], and take this out, and they take out all the fish.  
*Tseldii* [reverse current fish trap used down stream of the main weir] pretty near made like that, just straight on down [the shape of the trap is straight], only fish don't go [cannot] turn around, and they don't have this kind of [funnel] front. This [the front of the trap] wide open, so just fish go in.

*Inserted by Molly Galbreath:* Each family had *tez'aann* [fish trap] of their own. Everyday and night they take the fish out. Everybody works when the fish run, family and all, to cut it and dry it. And left over scraps left over for dogs, everybody got dogs.

De' xona xii'et tuk'ae xona keles.  
/Then they would boil some fish.

'Uyggat uyiit utl'edze' lggeyi xunt'aey uyii zdlaeyi yii tah kakeliis.  
/They would take out several milt (of the male salmon), that white gut.

Na'ooxe xu c'etsiy ts'aac ggaay tah yi yii killiis dze' tuu 'et diti'it dze',  
/Out there they would boil them in a small metal basin, pouring in water.

"Na'ooxe k'ay' yiit u'et 'ohdeł.  
/“You go out there in the willows with that.

“U'et gha tadgholyaes," dae' keniiix.  
/“You bathe yourself with that,” they said.  
Yii c'a'engii gha tseh laxi hteyiixi.  
/That is forbidden for them to eat the first fish of the run.

Tsae' dze' xiit'ese' 'et xiigha gha tahdilyiis gha k'et'iix ba'ooxo  
/First they are supposed to bathe with the milt of the fish outside there.

K'ay' yii tah c'etl'ese' 'et nitt'ahetekiis xu c'etsiy ts'aac yiit;  
/They would lug the milt in a metal basin out in the willows;

c'etsiy ts'aac ggaay yiit tah.  
/in a small metal basin.

Ya'ak'ae yii 'et ba'ooxo gha tahdilyiis.  
/Then they bathed with that out there.  
\*KJ: I don't know just how they did this. This was only for the adult men and women. The children did not bathe in the milt.

Xii'et gha tadilyiis ghak'aet.  
/They bathed with that at one spot.

Xona ts'itden ninkedeł dze' xona łuk'ae keyiix.  
/So then they would come back one at a time (after bathing), and then they ate fish.

Yii c'a 'engii gha tsae'tse xiit'ese' 'et gha gha tadilyiis xu k'et'iix ye t'iix.  
/It too was forbidden [to eat the fish] at the first until they had bathed with the first milt.

Yik'ets'en 'et xona ndaa łuk'ae ts'uyaan' kiineziix dze' łuk'ae keyiix.  
/Afterwards whenever they wished to eat the fish, they would eat fish.

Tseh laxi yaen' xu' t'ehghi'iix.  
/It was only during the start of the fish run that they did this.

Xiit'ese' 'et gha tadilyiis.  
/They would bathe with the milt.

Yiidu' 'engii udatne' dze' naxu ghalii xuytah xuk'e'e tat'ael.  
/It was said that this was a taboo, or one would fail to attain luck.

*pause*

Ghalii gha 'engii kiidine' naxu' naxac'ehwdelyiis nin'tah.  
/It was taboo for luck in hunting out in the country.

Nin' tah 'et xunaethniłdael dze'.  
/Out in the country when they would go nomadically.

'Ael tah n'el ghila' dze'.  
/Or when they would set traps.

Koyedan'a dan'a du' xu'el kekughitsaas xu tkughit'e'.  
/In the past it was difficult for them.

(K'adii k'eh li'i) na'ooxo yidi'i 'ekiineziix dze' yidi'i yii gha kiitcet.  
/(...) whatever they desired, they had to obtain (as food) from the outdoors.

K'adiit yik'eh li'i kut'ael dze'.  
/Now, this is not done.

Xugha c'ahwdezedi gha' ta yaen' xula' c'ahwdizet xu t'ehghit'e'.  
/It would be unlucky for them always, their hands would be unlucky.

Yii gha' c'a 'engii hwdiniixi.  
/This is why they say it is taboo.

Yeda xona, nen'ta nahtedeł ta xuc'a' hwda'aa».  
/When they went out in the country they would have bad luck.

'Ael kelaax de yii c'a xuc'a' hwda'aa».  
/Or when they trapped they would have bad luck.

Yii gha' c'a c'et'ese' 'el gha tahdilyiis dze'.  
/This is the reason they bathed with the milt.

Xiidaagga' xiidaagge' ugheldze' kule' hwdulzedi gha yiigha' k'e t'ehghit'e'.  
/Due to that, so that things would come to them nicely, that is why they did this.

#### **4) *Preparing fish for food during the run***

Yii c'a xona tez'aann xona luk'ae ketsidelzes dze',  
/And so then the salmon were striking against the fishtrap.

Łuk'ae xu'a c'ena' daa' ti'ittaan xu t'aex.  
/The school of salmon would stay still in the water down the stream.

Dzaenn ta n'el tets 'el tiz'aann kanakelyiis.  
/During the day and the night they would bring the trap back up.

Kankelyiis dze' luk'ae tah yii du' keye'iis, keye'iis.  
/They would carry them [salmon] up and string them, they strung them.

K'ay' [tuuze] k'at ['el] kii'aes dze'.  
/They string them with those stringy willows.

Tuu yii xiigha tintsicnełtsaedi yii nakiidelaes.  
/They put them in the water on stakes that were driven in the water.

Tuu yii talaax.  
/They [the fish] would be kept in the water.

Taagga kiineyeli 'el ta xona snaan du' c'elats'ii n'el nidelaes dze'.  
/After three days my mother would collect pieces of peeled spruce bark.

Ts'abael ta dansiyele',  
/She would peel the spruce.

Dansiyelii' dze' c'elats'ii ta naxaet'deldiit.  
/She would peel the spruce and then pack back the peeled bark.

Yedu' xona luk'ae ukat tghot'aasi gha t'ae'  
/These were for her to cut the salmon upon.

Luk'ae 'ultl'es xut'aex gha yidi'i k'et kiitet'iisi  
/The salmon are slimy when they cut them.

Luk'ae 'ultl'es xunt'ae dze' yii gha', c'elats'ii k'at tah 'utsiigga tabaagga daa' tah ts'es tide'aas dze'.  
/Because the salmon are slimy, she put rocks on the peeled spruce bark down at the beach downstream.

MG \* The bark is rough so the fish won't slide around. They only take fish according to how much fish they can take care of. They don't just block the fish off. They usually let just so many fish go through while they are busy cutting it. Otherwise you can handle only so many fish. So they leave the fishtrap out (of the weir, as in the painting). When they got done cutting fish, then they put the trap back in. The cutting table, I did not put that in (the painting).<sup>2</sup> They worked right along the bank (downstream of weir).

Yii t'aax tadatatniits'es xu yetah xona,  
/They (fish) were dumped into the water with that (bark) beneath them.

'Unae' luk'ae tinsde'aesi taagga hwneyel ta xona 'uniidze nikiiliis dze'  
/Upstream the salmon had been strung (on the willow), and on the third day they brought them from upstream.

Xiitse' ghanc'et'aas.  
/She cut off the heads.

Xiitse' ghanc'et'aas dze' utse' de xu'a k'ay' k'at dadilaax xu t'aex.  
/She cut off the heads and she kept the heads upon willows.

Nadaat ts'es yii ts'es nilkedez'aan xut'aexi yii uyii tata taghi'aa xu' tkut'ae.  
/Downstream within a ring of rocks, in that, she kept them in water.

Yi yii 'udaa'a tah luk'ae ti'titaan xu dyiliis.  
/In that (fish bin, a ring of rocks) she kept the salmon downstream laying still in the water.

'Udaa' didaagge' idaciiit tadaax dze'  
/She stayed in the water downstream up upon it at the end of it (the fish bin).

Yihwts'en yet'aas yet'aas dze' 'unggat du' dastaann ce'e tah dazdlaa.  
/Then she cut and cut and upland there were big racks.

Nduuy dastaann c'a sta' xugha daghita'.  
/My father had several racks for them.

Naenn du', "Łuk'ae tan'olyaes," ne'ekenii. Ba' tan'olyaes," ne'ekenii dze'  
/To us, "You bring up some salmon," they said to us. "You bring some dry fish," they said to us.

'Ungge' ba' tants'elyiis 'eł sta' na'daydiliis xut'iix.  
/We would bring up some dry fish and my father would put hang them up.

'Utggu dastaann 'edaydiliis dze'.  
/He hung them up in the rack.

Kiit'aax tah tet delk'iin'.  
/Beneath it they kept a smudge fire.

Xii c'etse' du' xona 'uniit łuk'ae teghila' de yet xu 'unae' tah tinalyiis xu t'iix.  
/The heads then were kept upstream in the water, and they were kept in the water upstream.

C'etse' tuu yii tah takeyelaax.  
/They kept the heads in water.

Ts'e nanaa c'etse' xanduuy hwneyeti 'eł hwłazaan c'asu kiinetyeti tuu yiiit.  
/And across the way they had kept the heads for several nights, perhaps ten nights, they were in the water.

\*KJ: Ten days if cloudy and rainy, but seven days if hot and sunny.

T'ae' xu nangitget xu t'aexi 'eł sta', "Xona c'etse' ghutcaesi na'ooxo.  
/Thus as they became a bit rotted, my father said, "Now the heads should be rendered outside there.

"Naxu xae tiil ggaay natdolaesi yiiit.  
/Put them there in the small lard pails.

"Ye 'unanggeh 'utggat de T'aghes Nicdaghalkey keniide xuhtah t'aghes kulaen.  
/"There upland at the place they call 'Blazed Cottonwood', there are cottonwood trees.

"Xuhta k'iit ka natoħdeł łuk'ae ghe' kaen' kii'eł ts'uyaani," ne'elniix dze'.  
/"In that area you go for some sap, for us to eat with the salmon," he told us.  
\*MG: both cottonwood and birch sap were harvested

Uts'enekaey' 'enaghal'e' dze' utse'e 'iinn 'eł xuhtah.  
/All his children, and his daughters were there.

Yihwts'en xu ghayi stsucde Nisc'iits xiidini' ghida'a.  
/Then my grandmother, the one they called Nisc'iits, was staying there.  
\*Steve Frank's grandmother, Lucy Frank, Katie John's father's aunt.

Yen cu uts'enekaey' xughile'.  
/Her children too were there also.

Xon 'iinn 'eł ta k'iit ka stats'edeł dze'  
/With them also we went for cottonwood sap.

'Utggu xuhtah t'aghes nansits'elii' dze'.  
/Up above we would peel bark out in the cottonwoods.

K'iit xae tiit yii ta ts'esic, ts'ek'iit xu t'iix dze'.  
/We drained the sap into lard pails, we drained the sap.

Uyii xae tiit yit tah k'iit dantnezts'ic xu ts'eliis.  
/We made the sap drain into the lard pails.

Ts'e xona xelts'en' nastedeli 'eł sta' c'edan'a c'etse' łciis.  
/And then in the evening we returned and my father already was rendering the heads.

Yii c'a kiitciis de.  
/They were rendering them there.

Naxu ts'utsaedi gha seldaedze' gha yet ghadghaan 'iinn udatne'e 'iinn naz'aayy', tsetsaan' naz'aay udatne'i ce'e tah yet dighila'.  
/There long before, from when it is said that they had killed the soldiers, they had big kettles, what they called a copper kettle.

\* See Kari 1986:75-86 about the incident in the 1790s when a group of Russians was killed here.

Gha yi yit denkiit'iiilde kiisuu' xu nakiic'uuts xu k'ae deyii yit.  
/Then in that they were splitting them (the heads) and scrubbing and washing them in the hole (fish bin) there.

\*MG: the mouths of the fish were pulled apart to get out the mud.

Xu yii ta naz'aay, tsetsaan' naz'aay yii tah dinkiit'il dze'.  
/They split them in the kettle, the copper kettle.

Hyakon'diik'aasi 'unset sitl'akiidelaes kon' niidze'.  
/They built a fire for it and they lugged it (the kettle) out to the middle of the fire.

\*MG: they had two poles in the middle and they set the kettle on it.

K'alii xu tuu xiitatt'edi gha yet yaen' xu'k'a xu' keyetciis.  
/They did not pour water in there, they just rendered them (just the heads).

"C'etse' ts'etciis," kiitnii.  
/"We are rendering the heads," they said.

Deyik'eh naz'aay ya xu'a deciis dze' k'aadu' 'eł tuu datnits'es xu' tniis.  
/When it was still rendering in the kettle, then water was poured in with it.

Yedu' xona luk'ae ghe' c'etse' ghe' xu'a udaagga' ta gaaxe ndaen gha nintnezts'ic xu c'etse' t'aex dze'.

/Then the salmon grease, the head grease, would come floating up to the surface as it was made.

Dinkiitl'iit xona nats'adei 'et 'unsogho c'etse' ta dantnelcaats xu t'aex.

/They poured it in (jars) and then we went back out to the fire as he rendered the heads.

Datggu ba' ukazggani gha yii nadeses dze' 'unse' kon' niidze' izes ts'enyelts'iit.

/He put the fish that was surface-dried in (the kettle) up above, and at the fire he was singeing fish skins.

'Unset ghayii c'etse' c'etsits'odze' tah tayiddiit dze' deles.

/On the fire the soaked heads that he had put in the water were cooking.

Yae' xona negha danayeliis dze' luk'ae ghe' negha itagga' tett'et.

/So then for us he served it (in a dish) with the salmon grease upon it.

\*MG: She skipped mentioning the dish, such as birch dish, key ts'aac.

'Eye 'et tah ba' 'et ts'udeyiis.

/And also we enjoyed eating the dry fish.

Ba' ts'eyiix.

/We ate dry fish.

Yi xu ba' xu' ts'eyiix, c'etsits'odze' tacdlesi

/We would eat that dry fish, and the cooked soaked fish heads.

Yik'ets'en 'et ta xona gaa k'iit nats'ilyaayi yii; c'a xona ts'aac yii tanayettl'iit dze'.

/Afterwards then we brought the cottonwood sap here; she poured it into a plate then.

Xona luk'ae ghe' ta itagga' tett'iit dze'.

/And she poured salmon grease upon it.

Koht'aenn ta itl'ayteliis.

/They would pass it among the people.

Dae' n'et ta xona xuhtah sc'eyaan.

/That is how we would eat then.

K'adii du' k'alii xu' tkost'aenn.

/Now we don't do that.

Luk'ae ghe' tah k'iit tanaltl'iit xu kot'aex.

/There was the sap poured in with the salmon grease.

Ya'ak'ae c'a xona gigi cu xona nelyax

/Then the blueberries were growing.

"Na'ooxe c'enluut 'unohbe'," ne'elniix.

/They would tell us, "Pick some unripe blueberries out there."

C'enluut c'enluut du' k'adii gigi nelyaex dze'  
/The unripe berries now were growing.

K'alii dats'ii nesdlaade, c'enluut nelaex.  
/When they were still not ripe, they are "c'enluut" unripe berries.

"Ghayii c'enluut nagha xona 'unohbe'," ne'etniix.  
/He would tells us, "Pick some unripe berries for us."

Yii c'enluut gha cu ba stedet dze', c'enluut ma nasnelyiisi,  
/We would go out for unripe berries for him, and then we brought the unripe berries for him.

'Unset c'enluu setl'aynekaas dze' ineles dze'  
/He would place the unripe berries out on the fire and he would cook them.

Kanaa nesdlaets tk'et'aex 'et inelts'iinc, inelts'iinc tseskaa kaen'.  
/While it was boiling across there she would smash them, she would smash them with a spoon.

Xiik'ae naxu dets'eni ghaeze' yii 'eh skeneziit k'et'aex.  
/And then there he stirred in some duck eggs.

Yii k'et nii dze' 'et xona da k'uun' luk'ae k'uunn' yii c'a inelts'iinc dze' yi cu xona itatl'et dze'  
/While doing that then the roe, the salmon roe, he would smash that too and pour it in too and

yii 'et yii 'et'eneziit dze' sinatl'aydekaas 'unset yii k'uun' 'et  
/he would stir it as that (kettle) was sitting on the fire with the roe.

C'enluut 'et nesdlaedze yii c'a n xu' dae' cu negha yiighiles.  
/That is boiled fish with unripe berries, that is how he cooked them in there for us.

Yii c'a xona nesdlaedze 'et negha nanatl'ayeliis dze' nata gge' tl'ayteliis dze'  
/Then he served to us, that which had been cooked, he passed it among us.

Yii c'a t'ae' ghalkaan' xu dit'e'.  
/That was very tasty!

Xu' i'et k'adii sta' 'iinn kulael dihwts'en k'a nident'en ya k'adii banakolnigi.  
/Now I am telling about things I saw for the last time before my parents were gone.

T'ae' c'enluut nts'e c'a yughize'? K'uun' uk'uunn' utanesdlaedze dae' yicdi'a'.  
/Those unripe berries what are they called? Roe, they are named 'the ones cooked with roe.'

Yii xu' 'et negha yiighiles.  
/That is what he would cook for us in there.

Ya'ak'ae gaa c'etsits'odze' banakolnigi yi du' xona yighe' yighe' tah dantl'iit xu' t'l'iix dze'.  
/And then the soaked heads that I mentioned, he would skim off the grease then.

Ya'ak'ae 'unset sden cu xona xae sinatl'adelaes dze' intnelghuuts 'utggu udaagge' tanghos k'et'aexi xu itah idaagge' ts'entliix.

/And on the fire in separate containers was the grease, and as it boiled, we would skim off the foam that accumulated upon the surface.

Ts'exona xae yaen' nitaese 'et tah xona yidaa naxu lard can xu nondlae 'iin lard can xiidini' yi c'a naenn k'adiit xae tiit besdi'aaan,

/And then as the grease was being prepared, in what is called in English "lard pail," we used to call 'grease container.'

Yii yii ta tadaniitneft'iit dze'

/We would pour it (the grease) into them.

Xona tsaa k'ae ba'ooxe ya ko'iix xuhtah k'etl'ayelaes.

/Then outside they had an underground cache and he set it in there.

'Uyggu nin't'aax tayettsiix, yetsaa dze'.

/He would cache it down underground, she cached it.

Xuxtah luk'ae ghe' k'etl'alaax.

/That is where the salmon grease was kept.

### **5) Use of the tseldii**

Yi c'a xona niidiinta du' luk'ae 'eli'i kusnese tah, luk'ae k'e'e 'uhwtedaax tah, naxu tseldii kiitniiy yii cu snaan 'e ftsiis.

/And then sometimes they were not obtaining salmon (in the regular fishtrap in the weir), where the salmon turn back my mother would make what they call "tseldii." ('the one at the rectum').

\*The tseldii is a large tapered trap without an entrance funnel. It is placed downstream of the regular weir and fishtrap to catch fish that have turned downstream.

Yi du' xona sden 'unset 'unaan' hwtsiit nani'aat tez'aann ut'ax tezdlaay,

/That was put in a separate place out across from where the fishtraps were placed in the weir that extended across.

Yii dadaasts'en dadaa' dze' tani'aa tkut'ae yi dihnax tesdlaesi utidelaes dze'

/She would place them in the water on the downstream side and opposite the fence grating.

\*MG estimates that the tseldii would be about 100 yards downstream of the weir. One fish trap would be pinned to the bank to the bottom with two c'ael [stakes].

Niik'ae tidelaes dze' udaa' ughatggeh du' tseldii tita'aa! gha xk'eh ya ko'yaax.

/She put them downstream on both sides (of the creek, i.e. a pair of tseldii). It would be in the water in between in case that they (the salmon) were escaping on them.

Gha ye tah xona tseldii da'aasdze' 'udaadze' dae' luk'ae telaxi hwtsiit t'at lax.

/There the tseldii was downstream a way, and as the fish swam upstream they swam into the weir.

Niidiintah łuk'ae sdeni'utnest'aeghe tah łuk'ae hwtsiit t'ax naann' kolaex xu k'adlii su' tez'aann yi c'a stlaxe  
/Sometimes the salmon have a bad attitude and as the salmon swam to the weir, they would not swim nicely right into the trap.

\*MG: Salmon can become engii, and can cause bad luck.

Xu' tkot'aexe di c'a xona 'udaa' tseldii nadaegge tseldii 'udaat naann' tekelaes dadaa'dze'.  
/If that happened, then downstream they had two tseldii in the water downstream, downstream.  
Danae' dze' tuu uyinkusdaan xu tkilliis dze' xona hwtsiit t'ac'edeli 'et  
/Upstream there they made spaces in the water (in the weir) so then they swam into the weir.

'Unaan' hwtsiit xakeyaasi 'et łuk'ae dan dadaa' nasiteldetdze'.  
/Or if they walk across on the weir, the salmon might turn back down downstream.

Xu yegha yit 'udaat tesdlaesi ts'idaa' dae' dae' tendez'aa tuu yit ts'idaas dae' tandez'aa xu.  
/So then downstream in relation to the grating of the weir they (tseldii) were straight downstream.

Xiighat xu 'use yi yit tah łuk'ae natdlaxi 'et ghayit tseldii yit.  
/Then the fish that were swimming back away would go into the tseldii.

Daa' ts'idaa'adze' tah ye yit nelduugge yedu' diłts'aegge xunt'ae dze' k'alii łuk'ae yi niikedastlaxe.  
/Downstream, straight downstream it would get full. It (the tseldii) is narrow (tapered) and the salmon can't turn around in there.

Just ts'idaadze' yaen' xu' gha yeyit nelduuk.  
/Straight downstream they would just get packed full inside there.

Snaan du' nadaasts'en tah ya tatadeyaasi 'utggat du' idaydettaan xu tk'ut'ae.  
/My mother went in the water on the downstream side (of the tseldii), and she was keeping them in (a sack or a tub) up above.

Yit katdelt'axi 'et daat łuk'ae 'utggadze' akayeliisi ye'iis.  
/She would club them and she put them up above and she strung them.

'Uniidze' yitsa'aa yi'a nduuy xaeł k'a yeyit kalaes.  
/She piled them downstream (on north side of the creek) and she put them into several packsacks.

Sometimes, niidiintah gistaann xaeł k'a yikaa' kaliis.  
/Sometimes she filled up six pack sacks.

Xu' tah xona k'alii tiz'aann yi xugha k'estlaxi tah xu' tah xu' c'a xona łuk'ae ko kkeł'iix tseldii 'et.  
/So when they did not swim into the fishtrap for them, then they got salmon this way with the tseldii;

Dadaa'dze' tah tseldii yit nakiineyuut.  
/they would drive them into the tseldii.

\*Fred Ewan notes that people sometimes would get in the water with poles to drive the fish down into the tseldii.

## 6) *The latter part of summer*

Nildiintah łuk'ae yii c'a 'engii nlaendze'  
/Sometimes the salmon in there were forbidden.

Nildiintah du' łuk'ae xuts'e' sdeni'utnet'aek saenn tah.  
/Sometimes the salmon would have a bad feeling toward them in the summer.

Łuk'ae gha k'eghetnaax tah, li'i su'u xugha kestliighe.  
/When they were working on salmon, there might not be enough for them.

Łuk'ae xona 'enhdatnes k'ekultsiisi 'eł yet gaa xona tseldii 'eł tah xona yii 'eł k'e tkilliis  
'eł xona tseh  
/If it looked like there was insufficient fish [in the trap], then here they fixed up the tseldii [that had been made] previously.

Nildiintah xona łuk'ae kunes, yii c'a xona łuk'ae a k'ecdelzes k'ahwdeniisi 'eł.  
/Sometimes they would obtain salmon, and then the salmon run began to diminish.

Unen naxacnelyaxi 'i'aas; yii nen xona łuk'ae niłk'eduughe tah yaen' telax xu tkot'iix.  
/In August ["the month the fur grows back"], in that month then the salmon only ran occasionally

'eł xiigha tez'aann xiigha tilaax dze' kac'e katl'akeyeliis tez'aann 'eł.  
/the fishtraps they had in the water for them they pulled them out.

Tez'aann yii kiilliis dze' xona tsaak'ae c'a cu kołtsiis dze'.  
/They stored the fishtraps in the underground caches that they had made.  
\*MG did not see them store fishtraps underground; the caches could be 10' x10'.

Naxu ts'ebael gha c'elats'ii uyii  
/There was spruce, peeled sprucebark inside [lining the walls of the underground cache].

Yii snaan ts'abael tah naselii'dze' c'elats'ii naxaeldelyii', naxaeldelyae.  
/My mother would peel some spruce and she would pack back the peeled spruce bark.

Naydetghiis, yii c'a xona 'uyggu 'uyggu tah nin' t'aax tah tsaak'ae ce'e hkułtsiisi.  
/She would pack it back and then down below they fixed a big underground cache that they made.

'Uyggu nin't'aax tah xona c'elats'ii 'eł hwdelii' xu kołtsiis.  
/Down there under the ground she would keep the peeled spruce bark and fix it.  
Nin' nin' yii kiideliis dze'.  
/They kept things under the ground.

Łaets łuk'ae k'exghilaa yii tatadaxi c'a'.  
/They kept the fish so that they would be free of dirt.

'Utgga niłtsi niłk'eze łaets ts'en xuhtah kenkiyudeł, kenkeyudele' dze' dae' nandedaxi c'a' tah  
/Up above on both sides they stacked them together [on the bark], they stacked them in a way to keep the dirt away.

C'ezu' decen ggaay di'et nentsiniitsaet des saas nu' tah.  
/They nailed them down with small tree branches in holes in the sand.

Niidze uyii keyudestaan xu' kot'aex.  
/In the middle in there they had a pole propped up.

### **7) Dzenax (fermented whole fish) and other foods for winter**

Uyii tah xona 'uggat uyii tah dzenax xona kiitniy yii luk'ae talsigi.  
/Inside there up above (on shelves), was the one they called "dzenax" [fermented whole fish], a whole fish.

Xiicaan 'et kosuu' dze' du' 'aasts'en du' xiinin'tnet'aas dze' nitdzenkiit'aas dze' 'uyggat nin't'aax keyelaes.  
/With the stomachs scraped out, and scored on the outside, they cut them lengthwise and they put them below under the ground.

Yiic'a xona dzenax kiitniy, gaa c'etse' yiic'a xona 'atden nakiiyelaes dze' k'uun' k'uun' 'et  
/So then they would mix together the one they call "dzenax," with the [fish] heads and with the roe.

K'uun' yii c'etse' luk'e tse' 'et yii c'a nitah k'uun' yaen' k'alii utah hwditnii', just k'uun' 'et c'etse' 'et yii nitah nakeyeliis.  
/Roe and the heads, the salmon heads, together with the plain roe that had not yet been used, they mixed them together, just the roe and the heads.

Ya'ak'ae yii c'a xona nin' t'aat t'akeyeliis. Yii c'a xona k'uun' tac'etse' dae' xii'edi'a' dzenax 'et  
/Afterwards they would put that underground. This is what they called 'heads among roe' and "dzenax" ['whole fermented fish'].

Yii xona xu'et nakotk'as, yii yaen' k'alii nic'elcedi xona luk'ae xona k'ehwdetnes.  
/So when it got cold weather on them, food was not stored anymore, and the [fresh] salmon were finished.

Dze' ba'ooxo tah xona c'a tsaas yii cu kenaxtediit dze' tsaas naxaetxdeldiit.  
/And outside there then they would go outside into the Indian potatoes and they would pack the potatoes back.

Yii c'a nin' t'aax kiidighila', tsaas 'et, gigi yii c'a nin' t'aax k'ey ts'aac kiigha ghighaann yii.  
/That too they kept underground, the potatoes with the berries in the birch baskets that they had made.

Yii yeyii tah gigi gigi nitc'aaydze' c'altsiit dze' nanihnuuy 'et gigi, ntl'et kiitniy xuy 'et tah gigi nitc'aaydze' c'altsiit dze'.  
/There in those [baskets] were the various berries, the red currants, the blueberries, what they call "ntl'et" [the lowbush cranberries], all the various berries.

Xu k'ey ts'aac yi tah nankeyel. Dankiitnebe' dze'.  
/They put them into the birch baskets. They picked [berries] filling them.

Nin' t'aax xii'et tl'akiyeliis dze' xu, xu' yaen' xona de'iiye de'iiye xghitcuut dze'  
/These they stored underground, thus each family would store its own supplies.

Tsaas yii c'a nin' t'aax kiidilaes.  
/The Indian potatoes also they put underground.

Xona xu'et nakotk'as tah xu saenn xu nin' tah c'a hteniis de xu' ts'iygge' c'etsen' ggan 'et xuy'et  
tah nikeliis dze',  
/Then when it got cold on them, they moved into the country with what they had brought from  
home, along with the dry meat,

xuy 'et xu'et naxaydelzes 'et tah xona yii kaen' hdelts'iix xey.  
/and with that the winter passed for them; they spent the winter living on that.

Yii c'etsen' ggan ba' 'et c'a xona dzenax yii c'a xona xey xey 'et xona nakeyeliis dze'.  
/The dry meat and dry fish, and then the whole fermented fish, that is what they had for the  
winter.

Yii c'a yii luk'ae tse' k'uun' tac'etse' xii'ec'e'ediif'aan yii c'a yi c'a xona keyeliis tah  
xuytah kaen' hdelts'iix dze'.  
/These fish heads, what they call 'heads among roe,' these are they what they had and they  
lived on that.

C'a luk'ae ghe' yii du' yi 'et cu hc'eyiix.  
/Also they would eat this with the salmon grease too.

Gigi 'et xii'et neldiit. Gaa naxu ts'igguuze' kiilniix xuytah t'aan luus kiilniiy xuytah.  
/They ate this with berries too. Here also was what they call the wild rhubarb and the sourdock.

Yidu' kiitnelciis dze' yi c'a nin't'aa tl'akiyeliis.  
/They would render these too, and they would store them underground.

Ye xey xona xanakiyeliis tah yii xu' tah luk'ae ghe' xiitatt'iitdze' 'et kiighiyiix.  
/That winter they would bring this back out, and they would pour on that salmon grease and eat  
that.

Luk'ae ghe' 'et kiiyeyiix.  
/They would eat this with salmon grease.

Yii kaen' xey nakedax tah yet naxu naxu xeyi ghayii saenn xiigha ghatna'a kaen'  
/They lived in the winter upon what they had worked in the summer.

Nitdiin tah udzih cu nin' k'e netedaas, xeytah  
/Sometimes caribou would be going through the country in the winter.

Yii yii kuy'et xeytah dze'.  
/[They lived] with that too in the winter.

Nondlae c'aann' li'i su' nondlaen c'aann' c'ilael dze'.  
/There was not much whiteman food.

Xu sta' du' 'aet tah ghila' dze' yunyeggaay, tehts'uudzi, niduuy, nałtsiis xuytah ghighiix kaen' c'aan ggaay 'ughines.

/My father had traps and he killed some fox, mink, lynx, wolverine and so forth and with that he got some "little food" [groceries].

Yii cu li'i dzaenn tah c'a nondlae c'aann' li'i ts'esyaan cu t'ux. K'alii tkut'iil.

/In those days we did not eat much white man food. It had not happened yet.

Niic'eduugh tah yaen' nondlae c'aann' ts'eyiix dze' ninc'ehwdedzet tah xona cu xu nondlae c'aann' 'et negha nayeles yii ts'eyiix.

/Only now and then did we eat whiteman food; only when he cooked whiteman food for us, would we eat that.

Dae' tah c'a koht'aenn ts'ile' dze' dae' xii c'a nasc'iyaa'n'.

/That is how we people were, that is how we ate.

K'adii du', just nondlae 'iinn nin'k'e tezdaedli 'et yidi'i c'a eli' kol xu tkut'ehi.

/Now that the whitemen have come into the country, they [the Natives] just eat things that had been absent here.

Just, c'ekeyaan c'ekeyaan dze' yaen' k'eghet'aen'

/And they just eat and eat that all the time.

Naenn du' li'i xu tkut'iil.

/We did not do that.

Yii c'a ba naghatk'aas nebet ka»caax dze' stayii»i yii c'a' cu neghatk'aas dze'

/There was the exercise for it [to obtain the food], so we would be eating in order to keep our bellies from getting too big, due to the exercise.

\*KJ: The diet was regulated so that we could work for a long time without getting hungry (cf. Allen's observation in 1885 (1887:129): "A much less quantity of food satisfies. Like most other Indians, they seem to eat when hungry, without regard to fixed intervals.")

K'alii k'adii sc'eyaann.

/Now we do not eat this way.

Snakaey 'iinn c'ekeyiix tah t'ae' de 'ac'ehnediis.

/When the children eat, they overeat.

Yii k'e k'alii kut'iil xuytah xuc'a' naghatk'aats.

/And this [diet regulation] is not done and this keeps them from getting the exercise.

Xona gaa hwk'e yaen'.

/Now this is all.

### *Summary*

Katie John's narrative is a classic of ethnographic description covering both the mechanics and values involved in salmon fishing. Katie begins the narrative by providing detailed instructions on the construction of the fish weir and emphasizes how the entire family was involved. She also describes what is appropriate behavior around the fishing site and how, before eating the first salmon, people underwent a ritual cleansing to bring good luck. During the height of the run everyone is involved in processing the salmon and Katie describes how all parts of the fish are used, including the meat, eggs, and heads, which are rendered to make fish grease. She also describes the importance of fish grease and how it is mixed with other foods, such as berries and Indian potatoes. Occasionally the salmon refused to go into the weir so Katie's parents installed a *tseldii*, or reverse current trap, below the weir. As the runs lagged the traps are pulled from Tanada Creek and stored in underground caches. Her recollection of underground caches leads Katie to tell about the storage of *ba'* and the preparation and storage of fermented fish or *dzenax*. Finally, Katie notes how satisfying Native foods are and how little has to be consumed to provide the needed energy.

## Chapter Six SALMON HARVESTING DEVICES



### *Introduction*

In this chapter we describe Ahtna technology for catching salmon. The various fish harvesting devices employed by the Ahtna are summarized in Table 6-1. As the table illustrates there are fifteen fishing devices or sets of devices attested in the larger Ahtna language area. In this chapter we discuss only the devices for harvesting salmon, first describing those devices and methods used before contact and in the early historic period. The most widely used device in aboriginal times was a dip net operated from a platform that extended out over the Copper River. Dip nets were most commonly used to catch sockeye salmon, which were processed to make the staple *ba'* or dried fish. The Ahtna also utilized weirs, basket traps, gaffs, spears, and snares to harvest salmon. With the introduction of the fish wheel in the first decade of the 20<sup>th</sup> century most of these methods disappeared.

Aboriginal Ahtna fishing technology was varied and represents a comprehensive adaptation to local conditions and species-specific fish behavior. The Copper River is a glacial stream with a strong current. In some places the river flows in multiple channels while in others it narrows to a single stream. Because of the glacial silt, salmon cannot be seen as they swim upstream. The strong current, in addition to the driftwood floating in the river after a hard rain, rules out the use of fish weirs. The strong current also means that salmon have to exert considerable energy moving upstream, so they travel where the current is weakest and rest in areas of slack water. During periods of peak migration, sockeye salmon travel in schools and form a continuous moving band on both sides of the river, migrating steadily and uniformly close to the bottom where the current is slower (Burgner 1991:15). In the river's main channel the Ahtna built platforms or scaffolds out over the water and used long handled dip nets to catch sockeye traveling close to the riverbank.



All of the salmon migrating up the Copper River spawn in the tributaries and lakes located at the heads of these side streams. At the lake outlets and in narrow, slow moving portions of side streams, the Ahtna used various combinations of equipment. In a few choice locations where it was possible to span a stream or channel with a weir, they used fixed weirs and basket traps. In side channels or sloughs of the Copper River, where the water was clear and the fish easily seen, they used gaffs and spears. Sometimes small creeks were entirely blocked up and the fish were harvested by hand. During the winter the Ahtna fished in the larger lakes through the lake ice for fish such as lake trout and burbot.

### *Dip netting salmon: the use of nets and platforms*

To catch salmon in the Copper River the Ahtna used a *ciisi* or dip net operated either from rocks or platforms or scaffolds built to project out over the river (see Plate 1). The basket of the dip net was made of spruce roots and shaped like a funnel with a tip at the end to catch the salmon's head. It was attached to a pole about 9 or 10 feet long that was painted with red ocher and often had a fish tail carved at the end (Simeone, fieldnotes). The Ahtna-style dip net with its rigid spruce root basket was especially suitable for the swift, murky waters of the Copper River. It appears to be unique among Alaska Athabascans since other groups living on the larger swiftly flowing rivers, such as the Susitna or the Kuskokwim, do not appear to have caught salmon with dip nets operated from platforms in the main channels of the river. The only similar dip net beyond the Ahtna area that we have found in the literature is illustrated in Birket-Smith and de Laguna (1938:118). They note that the Eyak dip netted for both salmon and herring with two sizes of nets and that the basket was woven from willows.

Ahtna dip net platforms were usually constructed from dry spruce poles lashed together to form four Xs or "saw horses" (see plate 6-1). One set of cross pieces was set against the riverbank, and the other pair set out in the river (Simeone, fieldnotes, Bell Joe, Ahtna Tape 110). These were joined together to form a scaffold that supported the planking on which the dip netter stood. Along the upstream edge of the platform a series of stakes were driven into the riverbed and used to support a fence or grating made of small spruce poles called *te'sdlaesi* or "objects that are placed in water" (for more detail see Fred Ewan's description below). The lattice was built to deflect the salmon out into the current and into the path of the dip net wielded by the fisher who

stood at the end of the platform and swung the net downstream (Simeone, fieldnotes). When a salmon was caught in the net the fish was scooped out of the water and deposited in a rock bin or wooden box located on the riverbank behind the platform. Tradition dictated that all of the wood used in the construction of the platform had to be hammered into the riverbed with a stone or wooden club because salmon were thought not to like metal and would therefore avoid the fishing platform (Bell Joe, Ahtna Tape 121). The platforms were constructed so that they could be easily moved to suit changing water conditions.



Plate 6-1. An Ahtna woman standing on a dip net platform with a net made from spruce roots, circa 1900. Note how the end of the dip net basket narrows into a pocket so that the salmon's head will get stuck. Also note the ends of the posts that support the lattice of fish fence on the upstream side of the platform. Photo: Smithsonian Institution.

Plate 6-2 (below) shows a dip net platform extending out over the ice of the frozen Tazlina River. Instead of two sets of cross pieces, two large timbers support this platform. Hanging from the upstream edge of the platform is the *te'sdlaesi* or grating used to deflect the salmon into the dip net. Note that the platform is being used in the winter as a storage platform and landing.



Plate 6-2. A dip net platform in winter, located somewhere on the Tazlina River. Notice how sturdily the platform is built and the fence or lattice hanging on the upstream edge. Photo: National Archives

Both women and men used the *ciisi*, but according to Ahtna elder Wallya Hobson (Ahtna Tape 115) it was the women who did most of the fishing because the “dip net was easy for them, but if the men [are] home, they help too.” She also said, “They used to get about three or four hundred (fish) in one night (which was the best time to fish). One person would do that. That’s the way it was in every village.” According to Frank Billum (Ahtna Tape 112) of Chitina, women used dip nets because they were light and easy to use. He added that women could even handle king salmon with a dip net.

Sockeye were most commonly caught with dip nets, but chinook or king salmon were also caught with dip nets. A large chinook salmon could break a dip net pole or even pull a fisher into the river. During the fall, dip nets were used to catch silver salmon on smaller tributaries of the Copper, but because the water is so clear at that time of year the dip nets had to be used during the night so the salmon could not see them. One such silver salmon fishing site was located on Kaina Creek which flows into Tazlina Lake (Frank Stickwan, Ahtna Tape 123).

The dipnet is mentioned in the three Ahtna legends: Salmon Boy, Raven, Eagle, and Seagull (see Chapter Eight), and the story of the “Tailed Ones” or Cet’aen (Kari 1987:40-45). Raven

introduces the *ciisi*, platform, and fence to the Ahtna who try and fish in the clear waters of the Copper River but are unable to catch anything because the salmon can see the net. Raven then muddies the waters by placing white rocks in the salmon's brains. Most intriguing is the linguistic connection with the Ahtna word *ciisi* [*ki:si*] and the verb and noun in Eyak: *-kihs* 'S (subject) pokes holes in O (object), catches O in dip net' and *kihsh-l* 'dip net' (Krauss 1981:24). A cognate term, *chiizhe*, is attested in only one other Athabascan language, Middle Tanana. Since the distribution of the cognate terms for dip net is so limited and the Eyak terms are a noun-verb, it appears that the Ahtna borrowed *ciisi* from the Eyak. There are few overtly borrowed words from Eyak into Ahtna.

Table 6-2 Glossary of Ahtna terms associated with salmon dip netting

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salmon dip net:	<i>ciisi</i>
whitefish, trout dip net	<i>tsabaey ciise'</i> (CW), <i>'es</i> (M)
<i>parts of the dip net</i>	
dip net handle:	<i>ciisi daten'</i>
fish tail carved on end of handle :	<i>c'ecela'</i>
rope attached to dip netter:	<i>ciisi tl'uul</i>
dip net basket:	<i>ciisi</i>
salmon dip netting place:	<i>ciisi k'aet</i>
dip netting scaffold or platform:	<i>nic'a'iltsiini</i>
rock weights lashed to the scaffold:	<i>ts'es bendeltl'uuni</i>
braces on scaffold:	<i>nic'a'iltsiini dzaade'</i>
grating, crosspieces in weir or in dipnetting scaffold:	<i>te'sdlaesi</i>
<i>some verbs for dip netting:</i>	
we will dipnet:	<i>ciisi 'stal'iil</i>
he is dipnetting:	<i>ciisi l'aen</i>
They scooped a dip net in the water	<i>taciisihghi'aan</i>
salmon are customarily taken with dipnets:	<i>luk'ae ciisi kae talyaes</i>

### ***Dip Net Locations***

Kari has documented over 85 salmon dip net locations on the Copper River. These are referred to by the usual Ahtna place names, but these names, for example *Nahwt'en Cae'e* for Fivemile Creek above Chitina, refer to a generalized district. The various specific dip net scaffold sites within that district do not usually have distinct place names. In a few cases, however, the Ahtna have place names for specific dip net sites. Some locations along the Copper River had good

natural rock perches that facilitated dip netting. Jim McKinley (Ahtna Tape 23), in his 1981 narrative on Ahtna village sites, describes some natural dip net locations. One was on the west bank below Chitina near Mile 127.

“Yet kanii yet du’ Ts’es K’et dae’ konii, yet hwk’e ciisi t’al’iiti yii gha’ su, ciisi uk’e t’al’iit you know.

“/Then the next place upstream then is called ‘on the rock’ [23-4 on west bank at mile 127], because on that place there would be dipnetting. Dipnetting would take place upon it.

The best dip net locations on the Copper River were located in an area from below the village of Taral to above the mouth of the Tonsina River and between the mouth of the Tazlina River and the mouth of the Gulkana River (see Figure 6-1). Apparently there were no good dip net sites located on the upper Copper River above the village of Chistochina (Bell Joe, Ahtna Tape 121).

In this interview conducted in July 2000, Ahtna elder Fred Ewan (Ahtna Tape 107) named many of the dip net locations on the Copper River between Gulkana and Copper Center. Not surprisingly, many of these sites, for example those at Dry Creek and Wood Camp, are still used by Ahtna today as fish wheel sites. Fred then goes on to describe the construction of the dip net platform and the conditions Ahtna fishers looked for when choosing a dip net site.

Q: Can you name dipnet locations?

Fred: Ciisi dak’ae, lotsa places, everywhere I can name it all the way up you know.

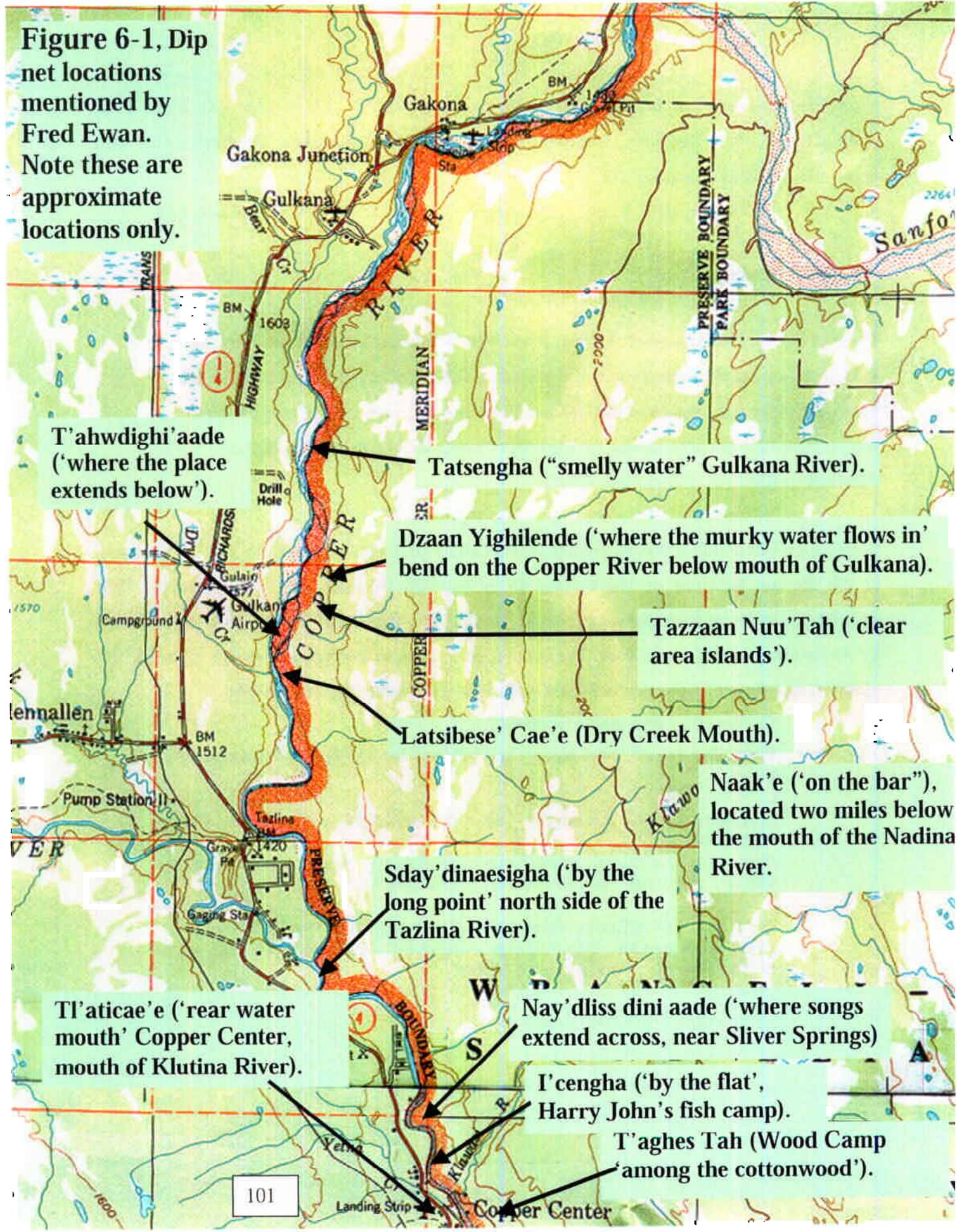
Latsibese’ Cae’e, Tatsengha, Tes K’e, T’ahwdighi’aade, Naak’e, Dzaan Yighilende

/Dry creek mouth, ‘by smelly water’, ‘on the hill’, ‘where a place extends below’, ‘on the bar’, ‘where the murky water flows in’.

Tl’aticae’e, Wood Camp, T’aghes Tah, T’ahwdighi’aade, Nay’liisdini’aa de.

/‘rear water mouth’, Wood Camp ‘among the cottonwood’, ‘where place extends below’ ‘where songs go across’.

**Figure 6-1, Dip net locations mentioned by Fred Ewan. Note these are approximate locations only.**



T'ahwdighi'aade ('where the place extends below').

Tatsengha ("smelly water" Gulkana River).

Dzaan Yighilende ('where the murky water flows in' bend on the Copper River below mouth of Gulkana).

Tazzaan Nuu'Tah ('clear area islands').

Latsibese' Cae'e (Dry Creek Mouth).

Naak'e ('on the bar"), located two miles below the mouth of the Nadina River.

Sday'dinaesigha ('by the long point' north side of the Tazlina River).

Tl'aticae'e ('rear water mouth' Copper Center, mouth of Klutina River).

Nay'dliss dini aade ('where songs extend across, near Sliver Springs)

I'cengha ('by the flat', Harry John's fish camp).

T'aghes Tah (Wood Camp 'among the cottonwood').

l'cengha (Harry Johns' fishcamp), Sday'dinaesigha Tazlina this side, and Latsibese' Cae'e, and then Tatsengha, Tes K'e, T'ahwdighi'aade where Gronia got fishwheel now, airport, Naak'e, Dzaan Yighilende, Tazaan Nu'u Tah.

/‘by the flat,’ ‘by the long point’ this side of Tazlina River, ‘hand head bank mouth’ (Dry Creek mouth), ‘by the smelly water’, ‘on the hill’, ‘where place extends below’ where Gronia has a wheel now, on the bar, ‘where the murky water flows in’, ‘clear area islands’.

That is the end of the ciisi k'ae for me. Where they live they fishing at that place.

Q: What do they look for in a dipnetting location?

They build it (a scaffold). They know where fish go by, I know where fish go by. Nclaan tedet, I know. Nts'e tedet, I know.

/I know where they go, how they go.

Kanghos nilc'et'i daa'a, you know that foam coming down the river, that's the food for the salmon you know, luk'ae c'aane' they call.

/Where the line of foam extends (in the river current), that is the salmon's food.

Yii nezc'edi daa'a which it hit close to the shore. Taaghah.

/Where the line [of foam] meets the shore.

Yeldu' te'sdlaesi we make, fish trap like, we put it like that.

/We make the grating (for the scaffold), we put it like that.

Fence like. When he hit that, luk'ae yedeldze' aldu' yii nse' tedet tdu' 'unse' dipnet kot'aende yii tdu' yiidet steady c'a you know.

/As the fish strike that (grating) they go outward, and he goes out into the dipnet.

Every dip we get. We can't miss those.

Te'sdlaesi, ts'abaeli ggaay destl'uuni, xay kae destl'uun. Really tough.

/The grating is woven from the small spruce, it is tied with spruce roots. It's really tough.

Yii t'aa si cu yii t'aa xa'sc'azdlaa xu, just like taxa'sc'azdlaa, two leg with the tree to the ground, two leg and you have enough weight, naxtet'es ts'es bendeltl'uun,

/Beneath that we have rocks set in position. We have two legs with logs, and they step down on these and rocks are lashed against it.

All heavy weight, never wash out.

Yik'ay'delghel tu 'ungge, 'ungga fish naadaxde, luk'ae naadaxde, kakalyaaxu, big place.

/They club the fish and the fish are dropped up on the shore into a dug out place (fish bin).

Yak'a lu all hwk'edax kut'aen 'ungge kiideidei dze'  
/When all the fish are in there (the bin), then they toss them up (on the bank).

More fish wheel yits'ae k'e better, dipnet. Every crack, two three sometime.

/The dipnet is superior to the fish wheel. With every stroke we get two or three sometimes.

[Fish wheel is] Too heavy you know.

### *Historical references to Ahtna dip netting*

The earliest reference to Ahtna salmon fishing comes from Russian sources. In 1797 the explorer Dimitrii Tarkhanov (Grinev 1997:14) was at the village “*Takekat*” on the lower Copper River, which is most likely *Hwt'aa Cae'e* or Fox Creek mouth, located just above the mouth of O'Brien Creek. Tarkhanov wrote that

The livelihood [they have] from the Copper River is red fish which come from the sea [to spawn] during the month of June, and they catch [them] in nets [dipnets] bound with animal sinews onto a hoop, and dry the yukola on racks; fresh fish they sour in pits, they heat heads and intestines with [red hot] stones in wooden troughs...

During the gold rush of 1898-99 thousands of prospectors poured into the Copper River basin on their way to the Klondike. A few wrote about their experiences and some recorded their observations of Ahtna fishing techniques. Some prospectors tended to view the Ahtna technology as primitive, in spite of the fact that many non-Natives utilized the same methods with good results. Joseph Bourke, a prospector who came over the Valdez Glacier, wrote that the Ahtna fished in June and July and that “Their method of catching is very primitive and almost a matter of chance and were it not that the rivers are overrun with salmon they would not, by their present method, catch anyway near a sufficient supply.” He went on to describe Ahtna dip netting.

They first make a basket of thin spruce roots, about Twenty inches in diameter at the top and tapering down to Six inches at the bottom and about Thirty inches deep. The roots are interwoven very openly leaving a large mesh thus: A light pole Nine feet long is tied across the mouth of the basket for a handle thus. The basket being finished they next build a skeleton platform out into the stream with one end resting on shore and reaching out about Ten feet and probably a foot above the water, on the downstream side of this and close up to it, a sort of picket fence is built with sticks too close for a fish to go through. So a fish, coming along the

shore and meeting this fence, must turn out and around it to continue its course. Here the fishermen stand over the outer end of this fence and throwing his basket up stream runs it with the stream by the end of the fence mouth forward, and if a fish should at that moment be rounding the corner it is caught but if not, the fishermen continues the operation till one is caught.

He added,

The white man is following the same method and doing well. The nighttime seems to be the best as Tony and I tried it in the day time and caught but a few while the rest of the boys went the following night and caught Eighty five whopping big ones. We brought with us into this country a salmon spear, but it is of no use on any of these streams that run from glaciers as the water is muddy(Bourke 1898).

Martin Bjornstad was another 1898 prospector who recorded his observations on Ahtna fishing.

He described the construction of the dip net platform.

In catching salmon, they put two wooded horses legs only on one end. Legs out in the water and the other end ashore. Then they put a few pieces of split logs as a floor, so they can reach about 12 ft. out in the river. They have a willow basket, or like the rib-work of a basket, pointed in one end and wide open in the other. With the open end tied to a thin light pole about 10 feet long, by dipping the basket into the stream at the upper end of the platform, wide end down stream, and letting it follow stream to the end of the pole. In this way meet the salmon going up stream. The water being grayish color, salmon cannot see the basket, but goes right into it and is thrown ashore. It is then cleaned and split and hung up to dry. Incians toast the dry salmon in front of the fire, eat the skin and all (Bjornstad 1898).

### *Fish weirs and traps*

At a few choice locations the Ahtna caught salmon in basket traps set into weirs placed across a stream. The best locations for traps and weirs were in the main channel of clear, slow moving side streams or where a stream entered or exited a lake. According to Kroeber and Barrett (1960:10) a weir “requires a moderate flow of fairly even strength across the breadth of a stream and a rather smooth bottom, probably gravel or shingle, into which stakes can be driven.”

Here Wallya Hobson (Ahtna Tape 115) provides a general description of the placement of fish weirs and basket traps.

Where the river come out of the lake, and there they put trap, they had fish trap long time ago, didn't have fishnet, Indian didn't have fish net. So

they put fish trap, real big one, made out of willow, and they get fresh salmon there. They come in and out, that's what salmon do, run around. And they get into trap.

In several locations weirs were built in sloughs off the Copper or the Gulkana rivers, such as a slough by *Nic'akuni'aaden*, Stickwan's Village below Copper Center, or at the mouth of Bear Creek on the lower Gulkana River where the famous dwarf chief *Cuuy* had a system of traps and weirs. Frank Stickwan (Ahtna Tape 116) described the weir on the Gulkana River just below the mouth of the West Fork.

Hwtsiit gha ['by the bridge'] bridge going across Gulkana River. Hwtsiit gha had village up there, bridge going all the way across, put fish trap across there. They put in fishtrap, fish go in it. Fish going up the Gulkana River, that's what they call, Hwtsiit gha. Used to be little village up that way. It's still there yet I think. Right along the Gulkana River. One time I see the place. Along the Gulkana River they had village there.

The best-documented Ahtna weir was located on Tanada Creek at the village of *Nataelde* or "Roasted Salmon Place," more commonly called Batzulnetas, after the chief and shaman (Kari 1986:23). The Tanada Creek fishery produces a particularly large size of sockeye salmon known to Ahtna living up and down the Copper River as *natael luuggu'* or 'roasted salmon fish' (Kari 1986:192). Historically the fishery was so important that it attracted people from surrounding communities. Allen (1887:68), the first non-Native to document the weir location, wrote that 57 people, some of whom had come over from the Tanana River, were at Batzulnetas in June of 1885 waiting for the salmon. In 1899 the explorer John Rice (1899:127-28) noted several large salmon caches at Batzulnetas, one of which belonged to Suslota John who, with his family, was camping there at the time. The weir on Tanada Creek was used until 1946 and was the last operational Ahtna weir in the Copper River drainage (see below and Katie John's detailed narrative in Chapter 5).

Other fish weirs were also reported to have been located on the lower East Fork of the Chistochina River, and on Sinona Creek. Frank Billum (Ahtna Tape 112) said there was a weir located at the mouth of the Tebay River that stretched all the way across the river. It was abandoned in about 1920. Another weir location was at the outlet of Mentasta Lake. The only photograph we have found of an Ahtna fish weir is the one located at Mentasta. The picture

(Plate 6-3) was taken in 1903 and shows only a portion of the weir set across Mentasta Creek (lower left hand corner).



Plate 6-3. Mentasta Village in 1903. The photo shows Ahtna houses, and a section of a fish weir with drying racks loaded with salmon in the background. Courtesy of Geoffrey T. Bleakley

### *Construction and use of the fish weir*

Much of the information we have obtained about constructing a fish weir comes from Katie John, who worked on the weir at Tanada Creek when she was a child (see Chapter 5). To construct a weir the Ahtna first built a bridge across the creek, which acted as staging for the stakes and grating used to block the fish from going upstream and into which basket traps were set. Pairs of crossed pilings were first set in the stream. Over these were set several stringers or log spans that were flattened on top for easier walking. Katie John said that her father built this staging using two large logs that spanned the creek and were supported by posts set into holes bored into the bottom of each log with a steel auger.

While her father constructed the bridge, Katie John recalled that she and the other children were sent to gather stakes, called *c'ael*, that her father sharpened at one end and then pounded into the stream bed on the up stream side of the bridge (these stakes are evident in the above photo as is the log bridge extending across the stream). The opening

Table 6-3 Glossary of Ahtna terms associated with fish weirs and traps.

fish weir, fish fence:	<i>hwtsiil</i>
<i>Parts for weir</i>	
fish weir location:	<i>hwtsiil k'ae</i>
weir braces:	<i>hwtsiil dzaade'</i>
vertical stakes put behind fish weir or dipnetting platform or pinned in solitary fishtrap	<i>c'aeli</i>
grating, crosspieces in weir or in dipnetting scaffold:	<i>te'sdlaesi</i>
the small spruce used as stakes in the weir:	<i>ts'abaeli ggaay</i>
vertical crosspieces in weir:	<i>te'sdlaesi decene'</i>
lower stringer for weir:	<i>hwtsiil t'aa</i>
<i>nandez'aayi</i>	
brush placed in fish weir or dipnetting platform as a drag	<i>t'aan' dighaeli</i>
fish trap for upstream swimming fish:	<i>tiz'aani, tez'aani</i>
large tapered fish trap for salmon returning downstream:	<i>tseldii</i>
(The <i>tseldii</i> was placed downstream of the weir with its opening facing upstream.)	
<i>Terms for species-specific fish traps</i>	
sockeye trap:	<i>luk'ae tez'aani</i>
“trout” trap (for smaller fish):	<i>tsabaey tez'aani</i>
coho trap:	<i>xay luugge' tez'aani</i>
gunny sack fish trap:	<i>tl'ogh ztl'uuni</i>
	<i>tez'aani</i>
<i>Parts for fish traps</i>	
inner basket of fish trap:	<i>-dzaeye'</i>
circular lashing on trap:	<i>ubaase'</i>
linear sticks on trap	<i>tez'aani cene'</i>
stakes for pinning <i>tseldii</i> to bottom of the stream:	<i>c'ael</i>

between these stakes was about 4 or 5 inches. While the stakes were being set, Katie's mother fabricated a set of grating or lattice or *tesdlaesi* that she tied on to the upstream side of the stakes. In the photograph (Plate 6-3) the lattice appears as sticks set perpendicular to the stakes. The children cut willows that were tied into bundles and pushed down into the water behind the weir

stakes. The ends of the lattice were pushed through the bundled brush in order to hold it in place. Logs were also laid on top of the willow bundles to hold them down so they would not wash away. The fish traps were then installed into gaps left in the weir (Ahtna Tape 46).

Basket traps, or *tiz'aani* (lit. compact object that is in the water), were constructed out of little spruce trees stripped of bark and lashed together with spruce roots (Katie John, Ahtna Tape 43). The traps were made in several sizes to accommodate different conditions and species of salmon. Traps built for silver salmon were smaller than those built for sockeye or chinook. *Tiz'aani* were very large traps (some may have been 10 feet long) built with a conically shaped entrance tunnel that funneled the fish into a larger basket from which escape was impossible (Reckord 1983b:33). The largest traps could hold up to 100 fish. They might be left in the river two to four days, depending on conditions, before they were completely removed. Katie John (Ahtna Tape 43) described the *tiz'anni* as having a barrel shape while Fred Ewan (Simeone, fieldnotes) said they were long and narrow with wide mouths so that the fish would not brush up against the edges when swimming into the trap.

Occasionally salmon refused to swim into the *tiz'aani* and would swim back down stream. In that case another trap called *tseldii* was set 100 or 200 yards down stream of the weir with the opening of the *tseldii* facing upstream toward the weir. To keep the fish from escaping *tseldii* were built so narrowly that the fish could not turn around. They were pinned to the bottom of the stream with a couple of *c'ael* and set into the middle of a fence used to funnel the fish into the trap. At Batzulnetas they had several fish traps in the weir and a *tseldii* or 'one at the rectum,' i.e., below the weir on the down stream side (Katie John, Ahtna Tape 43).

Molly Galbreath (Ahtna Tape 111) describes the situation at Batzulnetas, which she depicted in a painting that is a bird's eye view of the village. In her painting Molly shows the *hwtsiil* or bridge and fish traps lying on an island in Tanada Creek.

This little island has seven tez'aann (*tiz'aani*) there. Each family had tez'aann of their own. Everyday and night they take the fish out. Everybody works when the fish run, family and all. [Had] to cut it and dry. And left over scraps left over for dogs. Everybody got dogs. The traps are out on the island to dry. They only take fish according to how much

fish they can take care of. They don't just block the fish off. They usually let just so many fish go through while they are busy cutting it. Otherwise you can handle only so many fish. So they leave the fishtrap out (as in the painting).

In smaller streams with a strong run of sockeye, such as Suslota Creek, barrier fences and makeshift traps or gunny sacks were used to catch a small quantity of salmon. Katie John (Ahtna Tape 111) describes this:

They use to [use hwtsiif] in that Suslota Creek, they got a little creek, not too wide, just a little creek. They used to block it out, they used to wade around with sack. When they block that water, then creek no water then lots fish, they just put in sack all way down. When he got about four or five gunny sack, then he open that thing and water go back down. That's where they used to catch fish. I know my brother and my sister used to do that. We don't stay Suslota Lake that time. We stay this side at New Suslota. That's where we used to stay.

### *Other Salmon Fishing Techniques*

Other salmon harvesting devices seem to have been used in short-term fishing situations. Several types of fishing spears were used where schools of sockeye, king or silver salmon congregated at the mouths of creeks or the outlets of large lakes. For example, in August or September the Ahtna used spears to catch silver salmon migrating into Tazlina Lake or the late run of sockeye on Tanada Lake. In the upper Slana River, some king salmon would be snagged or speared and then consumed immediately. These were situations where smaller numbers of fish were taken and not preserved. The *dunax* or fish spear was also used in wintertime for spearing fish in lakes through holes in the ice. The *dunax* had a detachable head connected to the spear shaft with a piece of moose hide.

Table 6-4 Glossary of Ahtna terms associated with spearing fish.

pronged fish harpoon:	<i>st'eni</i>
water spear with detachable head:	<i>dunax, dinax</i>
sleeve for head of dunax:	<i>dik'aghil'aayi</i>
barbed spear, barbed head with tang, multi-purpose spear:	<i>dudaay</i>
gaff hook, branch hook	<i>tcen sax</i>

Fred Ewan (Ahtna Tape 107) said that king salmon schooled at the mouth of the Gulkana River before making their ascent up that river and were speared using the *dunax*.

Fred: They (king salmon) stay down the mouth, seven miles down we got mouth of Gulkana River. He (fish) stay two days before it hit the river up this way. I don't know why, what the reason anyway. Two days you could see that, that's all king salmon. Just swarming around there. Just there we get it all the time with a spear you know. Dunax.

Q: How would they use dunax? Do they use *ciisi k'ae* (dip net platform)?

Fred: No just out there where deep water. Where salmon at you know. If we want king salmon that's where we fishing, mouth of Gulkana. Everybody does now with a boat.

Q: How would they use dunax long time ago?

Fred: They walk out into the water. You could see, big black big one. We looking for really big one. *Kentsii'i* (Tonsina River king salmon) you know. My uncle used to do that, I do that too.

Fred: They had a lead on the end (or spear). There was a big iron you know, sharp one like a number one nail, big. That's dunax. Got string on it, tie it up. When you hit it, it hook onto the salmon, go right through and that string right in the middle, it can't go back out of it. Dunax they use for beaver and other things, in water [e.g. muskrat].

Katie Wade notes that the main traditional method of harvesting the salmon in the sidestreams and ponds along the Matanuska River was the fish spear. She also notes that the Ahtna-style *ciisi* or dipnet did not seem to have been used for any salmon fishing on the Matanuska River. Katie has noted that along the Matanuska River *ba'* or spread and scored dry fish was made only when there were enough good quality fish, and that they did not make *dzenax* or *nelk'oli*, the two styles of fermented fish that are made on the Copper River (Kari, fieldnotes).

In some spearing locations reflecting devices were placed in the bottom of streams to facilitate seeing the fish, especially with the shortening daylight in the fall. These devices were called by several descriptive terms: *ciisi k'ae nadini'aayi* 'that which extends across dip net place; *tuu yii tadeztaani* 'stick-like object that is used under the water', and *taex na'itggeyi*: 'that which is white under the water'. Katie John (Ahtna Tape 43) describes the advantage of using these sticks.

Taex na'itggey  
/that which is white underwater

'Uygu naann' naxu ts'abaeli ggaay kii'et kakatkey, yii 'unaann'  
kehdelaes.  
/Below across there they hewed some small spruce, and set it across (on  
the bottom).

'Uygu ts'es tedelax ts'edi, ts'es' et tedelax,  
/Then below where they swim over rocks, as they swim into the rocks.

Yii du' tsabaey xiik'e na'aen gha c'a.  
/They can see the fish on it.

Tsabaey niidze tedeł tah nilk'et dediili yikahwde'iix. Yii gha' c'a cu tkosiix.  
/When the trout go in the middle they move back and forth and he can  
see them in there. That is why it is fixed like this.

Ahtna also snagged or gaffed salmon in dead end sloughs or in clear water streams using a long pole and hook, called *icen sax* that was made from a branch. The Upper Ahtna used to snag king salmon in the Slana River as the fish moved up stream to Bone Creek (Kari, fieldnotes).

### *The FishWheel*

One of the most important changes in fishing technology came with the introduction of the fishwheel called *ciisi nekeghalts'eli* in Ahtna (lit. 'the dip net that revolves'). Today all Ahtna who fish use fishwheels to catch salmon. The wheels are made by the men and consist of a raft set on logs or four oil drums. The four arms of the fishwheel, which are usually made of wood, protrude from the axle as spokes on a wheel and alternate between a basket and a flat paddle. The river pushes the paddle and thus the force of the current itself runs the wheel. The basket, a wooden framed covered with chicken wire, dips into the river scooping up salmon or other fish. A slide in the basket guides the fish into a box beside the wheel on the raft. The person retrieving the fish takes them from the box (Reckord 1983a:60-62). Like dip net platforms, fishwheels are supposed to be made of wood because of the salmon's dislike for metal.

### *A History of Ahtna use of the fishwheel on the Copper River*

Elder Bell Joe (Ahtna Tape 110) notes the following:

Sometime in the village we use ciisi, [dip net] and after fish wheel start everybody don't use basket no more. Jim McKinley tell me about Frank Carroll, he went to Fort Yukon you know, from Copper Center. He went down there and he see fish wheel over there. He draw on the paper how

he make that wheel. Then he bring em back and Frank Carroll make a fish wheel. That where he start he say. Jim McKinley told me about it, around 1911 or 1912. He say that white man show him, and then Copper River start from there.

Carroll was an ex-military man who served as a telegraph operator at Chistochina. After completing his service he went north, probably to Eagle, where elder Harry Johns (Johns 1996) said Carroll saw his first fish wheel. After returning to the Copper River basin, Carroll started a fox farm near the present community of Copper Center, married a young Ahtna woman, and built a fish wheel. Later, an Ahtna man named Arthur Jackson made a copy of the wheel (Johns 1996).

The introduction of the fish wheel eased some of the work connected with catching the fish, but it increased the work of the women who were primarily responsible for the processing and preservation of the fish. One observer noted that in 1919 fish wheels were “kept under continuous observation and visited fairly regularly by the women. So that even if the men were away on hunting trips or working on the road, the records of the wheel represent a continuous service” (Ward 1919). For some Athabascans living along the Yukon River the fish wheel altered their settlement patterns because people sought good places to put wheels that were not often suitable for fish traps or nets (VanStone 1979:184). This was not the case for the Ahtna, at least along the main stem of the Copper River, since successful dip net and fish wheel sites are both located close to the bank where there is relatively deep water.

In this interview conducted in the early 1980s an unnamed Ahtna respondent from Gulkana first describes how her grandmother ran her fish wheel and processed fish and then goes on to talk about some of the changes that have occurred since that time.

They run the fish wheel just enough what they can cut and put in a string [of fish into the water to soak]. When they get through in the afternoon they go to bed and sleep. If they can't take care of it, I've never seen my grandmother run the fish wheel when there's too many fish. They put it [the fish] in the ground half a day, so the slime will come out and then in the water for the night and then everyone starts cutting, put them on a stick.

Q: Do you still do it that way?

Answer: You can't do it that way any more. I did that once and some one came and took the fish. Nowadays they don't care.

Q: Where do people cut fish?

Answer: We have to bring them to the house.

Q: Do you still dry your fish?

Answer: We dry them two weeks and put them up still higher so they dry more. Then we bale them in July month. By August we're out picking berries.

Q: Number of fish you used last year?

Answer: Last year they done me wrong. Shut off my freezer. Lost all my fish. Lady let me use her fish wheel in September. Dry fish and salt fish. We usually put in the ground; cover it up for the night. Then put it in the water in the early morning. Right now we cannot do that, too many bears. Have to bring it back here to the house. Cut it. Slime is still on. Then we have to smoke it. The Indian way, not the White man's way. No salt. Just smoke and keep the flies off (Stratton 1982).

Table 6-5 Glossary of Ahtna terms associated with the fish wheel

Fred Ewan named parts of the fish wheel. Note, some terms are extensions of many common Ahtna vocabulary items, such as 'dip net' becoming the 'basket' of the wheel, or the terms for 'raft' and 'box' being applied to the analogous parts of the fish wheel.

fish wheel:	<i>ciisi nekeghalts'eli</i>	'dip net that revolves'
basket:	<i>ciisi</i>	'dip net'
upper cross poles of basket:	<i>ciisi daten'</i>	'dip net handles'
upright poles of basket:	<i>uniy'nelghot'i</i>	'those which are bent and embedded'
paddles:	<i>uta'aaye'</i>	'its paddles'
axel:	<i>unekedatasi</i>	'that which turns it'
axel uprights:	<i>uk'e nakey'datasi</i>	'upon it something turns'
cross logs pinning two rafts:	<i>tanandez'aayi</i>	'those which extend into water'
raft:	<i>hvnnes</i>	'raft'
poles under raft:	<i>nse' biyilkayi</i>	'that which is hewed into it on outer side'
tether logs and ramp:	<i>uk'e nic'iidini'aayi</i>	'upon it something is extending to a point'
fish box:	<i>uzaele'</i>	'its box'

### *Summary*

Ahtna fishing technology represents a comprehensive adaptation to local conditions and species-specific fish behavior. Traditionally the most widely used piece of harvesting equipment was the *ciisi* or dip net, operated from a platform that extended out over the Copper River. In addition, Ahtna also utilized weirs, basket traps, gaffs, spears, and snares to harvest salmon. Most Ahtna fishing sites are located on the main stem of the Copper River. Historically, however, Ahtna had sites at the lake outlets and in narrow, slow moving portions of side streams. In a few choice locations, such as Tanada Creek, they used fixed weirs or *hwtsiil* and conical shaped basket traps or *tiz'aani*. These were especially effective in narrow, slow moving streams and at lake outlets, and like the dip net, allowed Ahtna to select fish on the basis of sex and reproductive condition. In the clear water of side streams and sloughs Ahtna used gaffs and spears. Sometimes small creeks were entirely blocked up and the fish were harvested by hand. With the introduction of the fish wheel in the first decade of the 20<sup>th</sup> century most of these other methods disappeared.



## Chapter Seven THE FISH CAMP AND PROCESSING SALMON



### *The Fish Camp*

Processing of salmon was done at the *saen hwnax*, the ‘summer house’ or ‘fish camp.’ Main fish camps used for processing and storing large quantities of salmon were located at strategic points along the length of the Copper River. Many camps were situated at or near permanent winter villages, which were frequently located near the mouths of tributary streams flowing into the Copper River. As elder Jim McKinley noted (Ahtna Tape 43), “Oh yes all the way down the line fish camp, across the river, here, way down, all the way down the line, pretty near every two miles I guess is fish camp. When I was a young kid I see that.” Tenas Jack (Ahtna Tape 117), another Ahtna elder, reported that Ahtna had “No houses that time, we make camps. They move all the time. That’s what they do all winter. And then they (are) down (at the) river fishing. They had all fish camps, both sides. They had their own fish camps. Lotsa fish camps, nobody there now. All the way down the river.”

Reckord (1983a: 79-83) provides a detailed description of Ahtna fish camps. She noted that traditional fish camps had temporary shelters, a smoke house and drying racks with dogs tied nearby to guard against marauding animals. Smoke houses were frame structures covered with a thick layer of brush used to protect the fish from the sun and rain. A smoldering fire in the center provided smoke that kept away the flies and helped to dry the fish. Other fish camps were built on lakes and at the outlets of the larger lakes where salmon were sometimes trapped. According to Reckord (ibid) local groups often visited fish camps year after year, and often left utensils, spears and traps cached nearby.

To store fish, as well as meat and berries, the Ahtna made extensive use of birch bark containers which they stored in underground or pit caches called *nen’ tsaa*. These pits were lined with a layer of spruce bark or birch bark. A more recent style of cache, introduced in the late 19<sup>th</sup> century, was made of logs that sat on an elevated platform (*dahtsaa* or *tcent tsaa*). Food caches were a crucial part of the Ahtna economic strategy and carefully constructed to keep out

moisture and prevent the dried fish and meat from spoiling. They were often located quite far from the village, perhaps half way between the fish camp and village, while others were situated near by (ibid). At Mendelta Creek caches were located between a half-mile and a mile from the main residence. Reckord (1983b:79-80) writes that these remote locations were justified on the grounds that marauding "Aleuts," the name the Ahtna used for Chugach Eskimo who lived in Prince William Sound, would destroy the caches and leave those Ahtna not taken as slaves to starve.<sup>1</sup> Because they were starving, the remaining Ahtna would be unable to follow the "Aleuts" and recapture the hostages. Caches were also hidden far from villages so that strangers could not see how much was stored in them. Reckord (1983b:83) adds the following:

Sometimes a small temporary steam bath or open structure was built on a high hill near a permanent winter village or a fish camp. It was designed to catch breezes blowing up the river and thus keep the mosquitoes from becoming a problem. Smoke smudges often burned in the summer to keep the insects off the drying meat and the workers.

Wallya Hobson (Ahtna Tape 115) made the following generalizations about the setting of the fish camp:

There was a village Wintercourt, that's about a few miles from Horse Creek this side. I think Horse Creek is Tats'esghi'aaden, I think that's what call it. 'Stone stick out to the water', what it means. They used to fish, you know dipnet by that stone sticking out. When they lived across the river (Copper River) they used to fish right there. Across the river from Lower Tonsina, that's where grandparents used to fish. All the villages were along the river and right near the creek. You have to have the water nearby because people don't have a well, you have to have way to get water, so that way don't have to have (separate) fish camp. Just right in your own village.

Today few Ahtna have fully equipped fish camps by the Copper River, preferring instead to process and dry their salmon at home where they can keep an eye on the catch. Most modern smoke houses are screened-in buildings with stoves that supply the smoke. Dried fish are now either frozen or kept in pest proof containers.



Plate 7-1. A contemporary smoke house made of posts and chicken wire. The fish are air dried while the smoke keeps the flies away. Photo, Bill Simeone

The general atmosphere of an Ahtna fish camp at *Tatsen Na'* (near Gulkana Airfield) is described by Fred Ewan (in Smelcer 1998:31-32):

Many people raised right here. Chief Ewan, my grandpa, Roy Ewan's daddy, Tenas Jack's mother, some more other people. Gakona Joe's daddy. Lots of people raised right here. My daddy raised here, and we [his siblings] raised around here too.

There used to be a cache down here, *ttaa*. We had a *tcentsaa* (pole cache). We had it way out a half mile down by the river. That river was way over there back then. Where the trees are by the hill over there. It's been coming this way for a long time. Good fishing here. Right here is the best place for fishing. You can get all you want. Sometimes hundred a night with dip net. We used to dip them out with nets we made from tree roots and a long pole. The net hole was only a couple feet across, not like the ones they use today. They were really strong. Sometimes we catch two at a time. Women and boys netted them. We put some rope around them in case they fell in. That's the way they should do at Chitina. So many drown there.

We survived good. Better than anything. We had fish racks here for drying salmon. We never get tired of it. We make 70 bales of fish one night. Seventy times forty-two (2,940) one summer. I remember that why

Table 7-1 Glossary of Ahtna terms associated with fish camps and fish processing

fishing gear (in general)	<i>luk'ae datahi</i>
summer house, fish camp:	<i>saen hwnax</i> 'summer house'
brush house, structure with branch walls	<i>i't'aan hwnax</i>
fish camp:	<i>luk'ae gha 'sdelts'ixde</i> 'where we customarily stay for salmon'
smoke house:	<i>let hwnax</i> 'smoke house'
dog house:	<i>lic'ae hwnax</i>
steam bath:	<i>sezel</i>
firepit:	<i>kon' k'ae, kon' dak'ae</i>
fire:	<i>kon'</i>
elevated rack (for gear, meat, etc.)	<i>daxi</i>
fish rack, fish rack poles	<i>dghastaani</i>
separate poles and racks maintained for salmon vs. whitefish (when both fish were proximate):	<i>luk'ae dghastaane', tsabaey dghastaane'</i>
baling pole for hanging fish, meat:	<i>c'etsax</i>
elevated cache, platform cache:	<i>dahtsaa, tcen tsaa</i>
underground cache, cellar, long-line cellar:	<i>nen' tsaa</i>
fish storage pit, pit for fermenting fish:	<i>tsaa k'ae</i>
rock fish bin by water:	<i>c'et'aats'i k'ae, ts'es ni\kedat'aan</i> (M)
dry pit for curing fish:	<i>t'aali-t'aali k'ae</i>
fish cutting table:	<i>uk'e'sc'et'aats'i</i>
fresh water:	<i>tuu</i>
spring water:	<i>tak'ats'</i>
river water:	<i>ts'itu' tuu'</i>
rope, line:	<i>tl'uul</i>
string, thread, twine:	<i>ts'aex</i>
spruce roots:	<i>xay</i>
birchbark:	<i>k'ey</i>
outer bark of spruce, cottonwood:	<i>i'lat'uudze'</i>
peeled spruce bark (for cutting fish):	<i>c'elaats'i, c'elats'ii</i>
bark peeling spud:	<i>u'el sc'elyaesi</i>
metal tub, wash tub	<i>c'etsiy ts'aay'</i>
salt, rock salt:	<i>natu'</i>
knife:	<i>tsay'tsiy, tsiy'tsiy</i>
large knife sharpened on both sides:	<i>tanahwdlaeni</i>
semilunar knife:	<i>baet tsel</i> (M), <i>betseli</i> (CLW)
whetstone:	<i>ts'es k'aal</i>
file, whetstone	<i>k'aal</i>
fish stringer:	<i>c'e'es, c'e'os</i>
stakes driven in the water to tether a string fish to:	<i>tintsi'neltsaedi</i>
fish scaler:	<i>u'el c'elggusi</i>
alder stick used for spreading fish:	<i>u'el c'elkac'i</i> (CLW), <i>c'ekac</i> (M)
fish pew:	<i>luk'ae u'el dac'elyaesi</i>
club:	<i>xal</i>
large birchbark basket buried underground for berries, fish:	<i>k'ey ts'aay'</i>
spruce bark pot for rendering fish heads, about 5' long:	<i>uyii c'etcesi, bic'ecaadz</i>
basket, birchbark basket:	<i>k'elts'axi</i>
bucket:	<i>naz'aay</i>
copper kettle:	<i>tsedi naz'aay</i>
metal basin:	<i>c'etsiy ts'aay' ggaay</i>
lard pail:	<i>xae tiil ggaay</i>
freezer:	<i>uyii nghaltiisi</i>

we made big cache. A high one too. Maybe twenty, twenty five feet high so bears wouldn't get in. We used ladder made from a big tree we notched all the way up so we could get in.

Ahtna elder Bacile Jackson provided an interesting account of the work of processing fish at fish camp (in Smelcer 1998:36-37):

When I was growing up we never had television. We didn't get to play all the time. My family had our fish camp set up along the river with drying racks for smoking and drying salmon. We used dipnets and fishwheels to catch salmon. I remember one day we caught eight hundred.

My grandmother used to cut sixty fish an hour—a salmon every single minute. She was real fast with her knife. She'd cut it for us to hang and dry on the *daxi*, our drying rack. We had a big line. Some one would hand grandma a fish and then get another one while she'd cut the salmon. When she was done someone else took it up to a person working the *daxi*. Only adults were allowed to dipnet for salmon or work the fishwheel. It was hard work, especially on hot days.

Usually children were the ones carrying the fish back and forth. Some of the kids would be in the woods gathering skinny pieces of wood we used to spread the fish open so that they dry better, or they gathered firewood to keep the smoke going under the fish. The smoke helped the fish taste good, but it also kept the bees and flies away. Sometimes the bees were really bad, and they'd be all over the fish and Grandma's hands as she cut the salmon.

Kids had to work hard back then to help the family put away food for the long winter. There was always something for them to do. We worked liked this all day sometimes in the summer.

### *Processing Salmon*

Catching salmon is relatively easy when compared to the work involved in processing salmon. When there were too many fish, people often stopped fishing in order to catch up with the processing. As previously stated, both women and men traditionally fished for salmon, but it was left to the women to process the harvest. Today both men and women process fish. Modern Ahtna generally use various methods for preparing salmon. More traditional methods include drying, smoking, and fermenting, while modern methods include freezing, salting and canning. Close attention to fish processing is well illustrated by the set of Ahtna nouns for special cuts of fish (see Table 7-2), by verb themes that are unique to the processing of fish, as well as the rich array of fish food products.

In Ahtna, the primary salmon product is called *ba'*, a stem-word that refers to whole dried sockeye, that has been split, scored, and spread flat with spreader sticks and smoked just the right amount in the smokehouse on a baling pole. The importance of *ba'* is highlighted by the fact that the Ahtna have a system of storing and counting *ba'* in bales of forty or forty-two fish. The *ba' xael* 'dry fish pack' was a basic unit of exchange, both for massing and rationing a family's store of dry fish and as an item of barter.

### *An overview of fish preparation by Katie John*

In the following narrative Katie John (Ahtna Tape 120) describes some of the different kinds of products people made from salmon including *ba'*, fermented fish, salmon eggs, and moistened fish, which was eaten in the spring after the dried fish had hardened over the winter. Katie distinguishes the early run of sockeye salmon from those that come later in the season. She calls the early run *naanaay* or "fresh fish" or "the one that is moving." These are the fish that people eat fresh and use to make *ba'*. Later run salmon are prepared another way, which will be described further on.

Q: Which fish did they use the most throughout the year?

Katie: Łuk'ae (sockeye), they make *ba'*, *dzenax*, and *k'uun'tay'tse'*  
/sockeye is for making *ba'*, and long-term fermented fish and 'eggs and roe'.

Three ways they make it. *Naanaay* is fresh, for eating, that one.  
/'the one that is moving' is fresh, for eating.

And they make *ba'*, *naanaay ba'*, *sta'* my father he make  
/And they make dry fish, fresh fish-dry fish, my father made that.

Łuk'ae *itanc'elghiil decen kae*,  
/He would put that into bundles with a stick (push the dried salmon onto a pole)

*Decen kae itenc'elghiil*, *all tl'edze'*, all male, *yekae naanaay ba' ighaan snaan 'et*.  
/He would bundle that with a stick, all the male fish especially, and he would make fresh fish dry fish with my mother.

*Snaan naanaay nildzenyet'aasi dae' initnet'aas. Kiitggiin kon' 'et*.  
/My mother would split the fresh fish lengthwise and cut it like so. They dried it with fire.

"Xay tah naanaay ba' ts'uyaana'," kenix. They always call naanaay.  
/"During winter we will eat fresh fish-dry fish," they would say. They call that 'the one that is moving'.

Dzenax kiighaann yii du', any time.  
/They would make long-term fermented fish any time.

Tez'aann yii luk'ae kakelaes tah, xa'xu hkuniisden  
/When they brought up the salmon from the fishtraps, they would take some.

Diixa' dalaax Yii du' ba' kiighiix.  
/The ones that die on their own these they would make into the dry fish.  
\*As opposed to the fish that were struck with clubs.

(Here Katie describes how in the springtime they moistened dry fish made the previous year.)  
U'eł kułgguuun'u in the spring, they use to make nałtseli with it. They call nałtseli.  
/'The one for spring weather' that used to make 'moistened fish', they call it 'that which is moist'.

You know the ba' he get too dry. Just like wood in springtime. Not like it start in fall and half winter.

They get too old and nałtseli c'a keł'iix [make moistened fish]. Nałtseli they make warm water. And they use it for 'that which is moist'. For 'that which is moist' they make warm water.

Nałtseli xii'edił'aan.  
/They call that 'that which is moist'.

Dae' u'eł kułgguuun'u ba' nelggan xu' nise'. K'alii tseh ba' keyiixi k'alii kiisiyighe.  
/That 'one for spring weather' is ba' (dry fish) that has gotten dried out. This is dry fish that they had not previously eaten. They had not eaten this yet.

Nelggan dze' dae' xugha kekutsaasi kii'iix.  
/It is dry and hard for them to use like that.

Yii kułgguusi 'eł du', xiigha tuu niłkuus dze' kakiidet'aase yi yii tuu yii takillaes.  
/So as the weather warms up (in March), they would heat some water for it, and they would cut it into pieces, and put it in the water.

Tuu nadaeggi night tets tuu yii talaax. Keyeles. Ba' keles.  
/It would be kept in the water for two nights. They would boil it then. They boiled the dry fish.

Xay tah du' ba' he always good, and kind soft,  
/During the winter in this way the dry fish was always good and kind of soft.

You can burn the [fish] skin by the fire.

Kon' niidze' tilts'etl, luk'ae ba' tilts'etl yii du' kiiyiix.  
/You can also singe it in the fire. They used to eat the dry salmon singed.

### ***Making Ba'***

The following is a generalized description of how Ahtna make *ba'*. Most of the information comes from a video made by the Copper River Native Association on the processing of salmon that featured Virginia Pete and Fred Sinyon (the video has no title and was made in 2000, hereafter referred to as CRNA 2000). Additional information is derived from interviews with various Ahtna elders. Note while methods for making *ba'* are generally similar there are differences in the exact methods people use.

Freshly caught salmon are difficult to process because they are slimy and hard to handle. One method of removing the slime is to let the fish soak in the river for about three days. Another method, seldom used today, is to place fish in a shallow pit called a *t'aali k'ae*, sprinkle them with dust and cover them with leafy alder branches to keep out the flies. The fish are left in the pit for 6 to 12 hours and then strung through the gills and soaked in the river for several hours. The fish are strung on the stringer so that they hang from left to right and are completely exposed to the force of the water. While the fish are soaking the processor cuts a quantity of alder branches and removes the leaves. These are used to lay the fish on to keep them from getting dirty while the branches are used as spreaders to stretch the fish while they are drying (CRNA 2000). In an interview Frank Stickwan (Ahtna Tape 123) describes how the fresh fish were processed before they were butchered and smoked.

Frank: t'aali k'ae fish storage bin three days, they leave in the ground long time ago, cover with willow,  
taade nen' k'e nighiyelde t'iighisiix.  
/they would leave the fish in the bin for three days.

Unaat' [the flesh] fresh fish when they one day cutting (cut on the first day) they don't taste any good, ts'elggani xut'ae, ut'ese' baedze' c'ilaen.  
/It tastes badly, because of the slime.

(After) three days in the ground, nen' k'e laax, then throw in the water.  
Then clean skin all the way, all they clean up really nice.

tuu yii talaax.  
/They wash them in water.

Then kii't'aas. Dry really nice, taste awful good that way.  
/Then they cut them.

After the alders are prepared, a fish is taken off the stringer and the head removed with a cut that starts at the chin and goes around the gills. It is important to remove all of the gills so there is no blood left on the fish. The head is saved and left to soak in the river. Next the dorsal and anal fins are removed, and the sides of the fish scraped to remove any sand and other debris. The fish is then laid flat on the table. Using a knife, the processor makes an incision in the back and slices along the entire length of the fish cutting a strip of meat away from the backbone and rib cage, but stopping just short of the tail. Note that the knife blade is not pushed all the way through the fish but only to the bottom of the rib cage. The fish is then laid open and the entrails carefully removed, making sure that no blood remains, which would otherwise attract flies. The guts and heart are thrown into the river or saved to make dog food. The fish is then turned over and another cut is made along the backbone, removing another slab of meat from the rib cage. At this point the fish has been laid open, creating a wide slab of meat with the rib cage and backbone attached at the tail (CRNA 2000).

The major problem with drying fish is to ensure that the meat is sealed before flies can lay their eggs. In June, the processor tends to cut the fish a little thinner so the meat dries faster. In July, the meat is cut a little thicker because the weather is warmer and dryer. Later in the summer the flies are more numerous and the weather turns damp so the meat has to be trimmed so it will dry faster. To facilitate the drying process the meat is scored with a knife to open up spaces in the flesh to the air. Sockeye salmon are scored only once, while the thicker king salmon are scored twice in a crosshatched pattern. The meat is then stretched out using a stick made of red alder, called *c'ekac* or *u'el c'elkac'i* in Ahtna, which further facilitates the drying process and keeps the sides of fish from curling as it dries out.

To stretch the fish, the processor cuts slits in the edges of the fish, one slit on each side of a sockeye, and two on each side of the larger king salmon. An alder branch is then notched at one end, inserted into a slit in the salmon, measured against the width of salmon and cut off. The cut end is then inserted through the other slit. Some people place the stick on the skin side, others on the flesh side. The fish is then rinsed and hung up on a pole in the smoke house. Freshly cut fish are hung with the flesh side next to the pole to keep the flies away. After a day the fish are turned. It is the man's job to hang the fish (CRNA 2000).

After cutting a few fish the processor cleans the cutting table and sharpens the knife since salmon skin is tough and dulls knives. The table is cleaned for hygienic reasons and to keep the smell down so as not to attract bears. The fish camp is also kept neat and clean to please the salmon. As one Ahtna elder put it you have "to treat fish good, like human being, [if you] don't treat body right, he [the salmon] knows it" (Simeone, fieldnotes). If people keep a clean, neat camp and are careful in preparing the *ba'*, the fish will come right to their fish wheel, if not the salmon will avoid being caught. The fish are smoked and dried from three to seven days and then taken down and the backbone and tail cut away. Backbones are bundled together with a piece of willow and hung up in the smoke house. The meat is re-hung on poles and left to dry for another two weeks or a month depending on the weather. While drying, the salmon are supposed to be turned everyday to keep the flies off. If flies do lay eggs, that part of the fish is cut away. After the fish are dried they are bundled into bales (CRNA 2000). As previously noted, an exact number of smoked salmon are bundled together to form a bale. According to Frank Stickwan "42 fish they make on one on *tsax* (bailing pole) in rack. *Denesde xundelaey nadaeggi u'ulten'* (42 baled together) makes one pack."



Plate 7-2. The final product, ready to be hung in the smokehouse.  
Photo Bill Simeone

Table 7-2. Ahtna terms associated with the processing of fish

fresh fish or meat:	<i>naanaay</i>
fish flesh, fish meat:	<i>c'enaat'</i>
salmon that are strung in the water:	<i>tuk'ae tinst'aesi</i>
fish that has been left in the water too long after being caught:	<i>tuu nitte'e</i>
soaked fresh fish heads:	<i>c'etsiits'odze'</i>
fish that died naturally (not clubbed to death):	<i>diixa' laaxi</i>
whole fish:	<i>taltsigi, taltsicdze'</i>
clubbed fish:	<i>u'el telgheli</i>
unclubbed fish:	<i>'ele' u'el tilgheli (CL), k'alii utanc'ilghali (M)</i>
cut fish:	<i>att'aats'i (CL), ghatt'aadze</i>
(M),	
uncut fish:	<i>'ele' itaats'i</i>
filleted backbone with flesh, dried backbone:	<i>'cevene' (CM), c'iine' (L)</i>
fish cut and spread for ba`:	<i>ba' att'aats'i</i>
fish sliced in two, joined at tail:	<i>lk'esi</i>
(cut with backbone on one side, flesh on the other, joined at the tail)	
lateral cross-cuts on main flank of fish:	<i>tnadghuugi</i>
fish split along the backbone??:	<i>nildzendalnene</i>
fish meat cut in long strips:	<i>natsak'i</i>
fish that has been cut open and spread out to dry:	<i>ninaghalk'agi</i>
slice of king salmon flank meat:	<i>i'denaagge'</i>
sliced backbone strip on king salmon:	<i>c'entsiis k'aage' lit. 'nose ridge'</i>
lateral cross-cuts in	<i>c'entsiis k'aage' nadzel</i>
winter food supply, stored food (any type of food):	<i>nildcedi</i>
dried fish, split, scored and spread fish:	<i>ba'</i>
dried sockeye salmon:	<i>tuk'ae ba'</i>
dried early sockeye, "little dried fish":	<i>nulaeggi ba'</i>
dried king salmon:	<i>tuk'ece'e ba'</i>
dried non-salmon (grayling, trout, whitefish):	<i>tsabaey ba'</i>
dried whitefish:	<i>tuux ba'</i>
dried fresh salmon (not cured before being cut):	<i>naanaay ba'</i>
dry fish that is still moist, damp:	<i>ba' tseli, ba' ltseli</i>
moldy dry fish:	<i>ba' adghaan'i</i>
leftover dry fish used in the spring:	<i>bakutgguum'i, u'el kutgguum'i</i>
partially dried fish:	<i>ukazggani</i>
bale of 40-42 dried fish(sockeye):	<i>ba' xael</i>
bale of 20 king salmon:	<i>tuk'ece'e ba' xael</i>
<i>Other dried fish</i>	
dried sockeye backbone:	<i>nulaeggi zggani yene'</i>
dried fish eggs:	<i>k'uun' nezggani</i>
fermented fish eggs stored in fish skin:	<i>k'uun' dzaex nitgedi</i>
dried fish eggs stored in fish skin:	<i>k'uun' dzaex</i>
wind-dried meat, fish:	<i>uk'edezyesi</i>
dry split king salmon head:	<i>tsit'aggan</i>
<i>Verbs themes special to fish processing</i>	
scale O (fish):	<i>O+t+gguus</i>
scrape O (especially scrape slime off fish):	<i>O+O+tac'</i>
cut O (fish) on one side, leaving backbone in:	<i>O+t+k'ets'</i>
make lateral cross cuts in O (fish):	<i>O+t+n+O+ghuuc'</i>
spread out O (drying fish) with spreading stick:	<i>O+ t +kac'</i>
hang, put O (fish) on drying rack with tail hanging down:	<i>O+ O +tsak'</i>
<i>also the general verb theme of cutting</i>	

Table 7-2, continued

cut O (fish) with knife, saw, scythe:	<i>O+G+Ø+t'aats'</i>
<i>Other salmon products</i>	
fish skin bag:	<i>ba' zes</i>
fish skin boots, pants:	<i>ba' zes seł</i>
<i>Cooked fish</i>	
raw fish flesh, fish meat:	<i>c'enaat'</i>
boiled salmon:	<i>łuk'ae sđlaedzi</i>
boiled fresh fish:	<i>'adii dłaedzi, naghanaaq</i> <i>sđlaedzi</i>
boiled dry fish:	<i>ba' sđlaedzi</i>
fish boiled with unripe berries:	<i>c'enluut 'eł nesđlaedze</i>
singed dry fish:	<i>ba' łts'eł'i</i>
soaked dry fish:	<i>ba' naltsełi</i>
fish egg soup:	<i>k'uun' taas</i>
boiled soaked fish heads:	<i>c'etsits'odze' tacđlesi</i>
fish, meat cooked over fire while suspended on a line:	<i>na'ibaali</i>
foam, scum on top of kettle of boiled fish:	<i>i'dakonsge'</i>
salmon fire roasted on a spit:	<i>nataeł</i>
soaked dry fish(esp. made in April – May from <i>u'eł kułgguun'i</i> ):	<i>naltsełi</i>
whole fish barbecued on a stick:	<i>tsigi ggaay</i>
smoked salmon strips:	<i>natsak'i</i>
par-boiled fermented fish:	<i>kenalvaexi</i>
boiled moldy roe:	<i>k'uun' xaan' laedze</i>
unripe berries cooked with roe:	<i>uk'uunn' utanesđlaedze</i>
soup, stew:	<i>taas</i>
fish soup:	<i>łuk'e taas</i>
fish egg soup:	<i>k'uun' taas</i>
juice, liquid, soup, broth:	<i>c'etu'</i>
fish broth:	<i>łuk'etu'</i>
<i>Types of fermented fish and fish grease</i>	
Long-term whole fermented fish, stored in August, fermented 2-3 months in underground pit:	<i>dzenax</i>
fermented fish heads:	<i>c'etse' nitsiil'i</i>
short-term fermented fish, fish heads, fish meat and roe, "stink heads", fermented 10 days:	<i>nelk'oli, nilk'oli</i>
soup of fermented fish and parts:	<i>nilk'oli taas</i>
fermented fish eggs and fish heads:	<i>k'uun' tay'tse'</i>
cured (rotten) fish eggs:	<i>k'uun' nilgedi</i>
salted fish:	<i>natu' dzenax</i>
salmon grease:	<i>łuk'eghe'</i>
salmon grease inside fishskin bag:	<i>łuk'eghe' ba' zes yiidi, ba' zes</i> <i>yiidi</i>
whitefish grease:	<i>tsabaey ghe'</i>
salmon head grease:	<i>c'etsighe'</i>

### ***Other salmon products***

In addition to making *ba'* Ahtna also make salmon head grease, called *c'etsighe'*, which is made by first soaking and then boiling the salmon heads. Fish heads are then left in the river about one week until they are soft. The soaking heads are called *c'etsits'odze'* in Ahtna. After they have

been soaked, the heads are cleaned and boiled with a little water. As they cook, the grease rises to the top and skimmed off and poured into bottles. In the past people drank the grease and used it to make fish soup, which is still considered by the elders to be strong medicine. One elder said he put fish grease in little jars and ate it with some fish before he went to bed, so that he could sleep well (Simeone, fieldnotes). According to some people, king salmon grease kept a person healthy and strong, and was good for heart trouble, cramps and other ailments. Other people say that the grease from king salmon is too strong and not much good. They claim it is better to split king salmon heads and dry them. In the following description a person from Gulkana describes making fish grease from salmon.

Years ago heads (were kept) in the water for a week while they got sour and soft. Go down to the river and take bucket, tear the heads off, they are all soft. Wash them and put them into a bucket, a big stew bucket. Open up the inside of the nose of the salmon, tasted just like carrots. Taste good. Put the heads in stew bucket, put them on the fire and add a little water. It doesn't take too much to cook it. Take the bucket off the fire, the head grease has all come to the top. Take the grease off with a spoon; get a half-gallon, maybe a gallon, and put it in bottles. Just like cod liver oil. You take a drink if you get sick. Every little once in while you take that, it's medicine. My daddy used to take it. You never starve when you have salmon grease or dry fish. It last you all day. Other foods make you weak, dry fish and tea last you all day. My daddy said the older the grease the better. All fat is good. Put grease in soup. We use to put it in the ground when we had enough heads. Use to be lots of fish. Cut it fresh, dig a hole and line it with tree bark and place the heads into the hole during the evening when there were no flies. Put in for five or six days. Ready to serve, invite people to come and have nice salmon heads (Stratton1982).

Backbones of king salmon were dried along with the flesh and then used to make soup. Meat located along the backbone is very oily and was trimmed away before the bones are set out to dry. It took about three days for the backbone to dry. Only special people ate the dried backbone of Chinook salmon. In fact, only certain people were allowed to eat certain parts of the fish. The back part of the fish is strong and was eaten by children – but the area around the gills was never given to children. That was cooked and only the “head people” (i.e. people of high ranks) ate that (CRNA 2000). Unlike sockeye and king salmon, coho salmon, caught in the fall, were not dried but left whole to freeze. Grass was stuffed down their mouths to keep any flies out, and the fish were simply hung up in the cache to freeze (Frank Stickwan, Ahtna Tape 123).

In addition to making *ba'*, Ahtna also prepared fermented salmon and salmon eggs. Fermented salmon or *dzenax* was fermented in underground pits dug into the side of the riverbank and lined with leaves. The fish were left for a period of time until they become “nice and soft.” Salmon eggs were also fermented by placing the eggs inside the stomach of the salmon and then storing it in a cache. The eggs and heads are layered and left for ten days. Here Katie John (Ahtna Tape 120) talks about a number of ways to prepare salmon. She begins by talking about late run red salmon and then goes on to describe various ways of preparing fermented and moldy fish that were considered both delicacies and medicines.

Q: Did they like those late reds?

Katie: They just roast it, they don't boil it, they don't fry it, mostly they roast. That's better, that's the only way to cook. I don't boil it, like fresh salmon. Not too good.

Soup is not too good. So they just roast it with moose fat, or any kind of fat. They make lot grease there. It taste good though, I used to eat that.

Down at the creek at old village, we catch some time one two. Bring it back we do that way. We roast it that way. It's good that way.

Q: Ever heard about dried fall fish?

No: I never hear about that.

Q: Nelk'oli and dzenax, (short and long-term fermented fish) how much would they keep?

Katie: Tsaa k'ae dakiilaes.

/They put them in the underground cache.

Dzenax (long-term fermented fish) they can put up lotsa. Dzenax they don't put it inside something (don't put it in a smaller container).

Some time not much fish, then they use k'ey ts'aac (large birch baskets buried underground). When lots of salmon, they make big hole, they put in spruce tree bark, c'elaats'i. Then down there dirt. Then they put tl'ogh (grass) and they put k'ey' (willows) down there.

Then they just throw in there and pile it up. Probably about 50, 60 (fish) at one time.

Łaltsicdze' xiic'aa kesuu'

/The whole fish, they have cleaned them off.

On this side, they cut a strip down, make with knife. They cut it down both side. And one on his tail, they cut like that. And they cut off that meat like that. I never ask why they do that. Only his tail they cut big piece out, and put it back though, and cut side. That's all.

Q: How long does it take dzenax to get ready?

Katie: August, last part, they know when fish gonna stop. Then they start to collect and then they make dzenax. Just August they make dzenax. Then they close it up, never open (cache) until December. That's the time they take it out. Like at Nataelde (Batzulnetas).

But they make nek'oli (short-term fermented fish) any time. That's just short time they can eat. They can make hole inside ground. Probably just put head and eggs. And maybe ten days [later] they had that. And then they take it out and eat it.

In wintertime they do it (nek'oli) different. That one they fix birch bark. And they put eggs and head together. And they put it under the ground. That one they use like dzenax. They take it out same time as dzenax. They open dzenax just before Christmas. When December start. They put it up last of August, they leave it under the ground about three months and a half.

Q: How long would it last then?

Katie: They don't eat like (other) food every time. They eat once a week some time.

Q: How come, (because) it's so strong?

Katie: No, sometime new people coming. All right, then they cook for them.

Q: How did they cook it?

Katie: Kenakeyelaex.  
They par-boil it.

You know they boil water, and they put dzenax in there maybe about two minutes, that's all. Then they take out.

Dzenax kenalyaex (par-boiled fermented fish), that's what they call.  
"Dzenax ken'olaex," they say.  
"You parboil the dzenax," they say.  
That mean, "You put dzenax in hot water and eat it."

Q: How do they fix netk'oli?

Katie: Netk'oli the same way. They take it out, they put it in boiling water, those heads. For a few minutes and they put k'uun' (roe) in there, that's for soup that one. Netk'oli soup turns to just like milk color.

Netk'oli taas.

/Short-term fermented fish soup.

Netk'oli they had all winter too, when they put it in birch bark, and they put it same time as dzenax. And same time dzenax they take it out.

You just put in hot water, and you take it out, that's kenalyaex (par-boiled).

Sometime my mother say those the meat they put in the k'ey ts'aac (birch basket). And they put that one under the ground too. They put between real dry meat, they put another dry meat kind of a little damp.

Fish the same way. I know my daddy used to do that. They put in a little damp, to make em moldy. They want moldy stuff. That's the way they used to fix it. When they take it out, between there it is moldy. That one piece meat little damp. You see my daddy he do that. Ba' the same way. Ba' itseli (damp ba'), regular dry, he put between all the way, and then he package up. That one he leave inside the cache, that one he spoil a little. They like moldy (foods) a long time ago.

K'uun' xaan' laex dze' ' a tkilliis,

/They fixed the roe so it would get moldy.

In one hot water, they boil, and they eat it. They do that for some kind of sickness I guess.

They make different food like that.

Right now we don't use that, we don't use xaan' (moldy fish). If we see some, we gotta clean it, we gotta wash it. They don't do that, they gotta use that. That's why they make different, meat and fish they make it moldy. If you put all dry meat together you put it away, there's no xaan' (mold). And all dry fish all put together, no xaan'. That's why they put some little damp one(s) between there.

In this narrative, Wallya Hobson (Ahtna Tape 115) first describes how to roast a whole salmon and then describes how to prepare salmon eggs.

They said that they used to roast sometime whole salmon. They take fresh right out of the water. They just clean it good. Then stick sharp round. They use spruce tree. They stick that through the tail and come out mouth and they take the guts out. They gotta be careful when they poke it through there. Then they stick the end in the ground, then they turn it this way and that way. And then somebody brings the salmon, he

cut it in half, and you have another kind of stick, sharp like, and knife, butcher knife on top round. As long as the salmon fillet, with skin on it. They just stick this one in it, the skin all the way up to the tail part. Then they stick the end in the ground, and cook that slow too. And keep the fire going just right. They roast it for about an hour. That's how they used to cook.

Sometimes they used to hang the salmon, they tie birch bark. They always have birch bark handy, and they tie that around the tail, so the string won't come through the flesh. So they hang fish that way. They hang it over the fire, and just cook it over the fire.

Everything goes in (storage) basket. Salmon eggs same way. They part dry the salmon eggs and then they put in basket and they throw the top on and put in the bottom of the storage. It is something like caviar. Salmon eggs get to be kinda sticky chewy. That's something useful too, but its not strong like what we call stink heads, dzenax, this one is something like caviar. They all haul it up in one basket and throw the lid on it and put it in cold ground storage.

A second description of how to roast fresh salmon comes from Frank Stickwan (Ahtna Tape 123), with commentary by Molly Galbreath.

Frank: /They roast it  
tsigi ggaay dae' kiidi'aaan t'edzi kae. By the fire by the fire  
c'ekets'itksesde k'ent'ae cooking by fire.  
/The one they named 'little caribou fence' is with a male salmon. They  
cooked fish on a spit placed by the fire.

Nataet dae' dghat'aen' another way, nataet,  
/'Wide meat' was done another way, 'wide meat'

Ts'it's'en kiit'aa's dae' yii c'a 'use' i'nelguuc tkiighil'iis.  
/They cut it open on one side and they fix a skewer through it by the fire.  
Old timer by the fire cooking.

\*MG: They use a green spruce stick about 3, 4 feet long, with flat part, 2, 3 inches wide and foot long. the fish rests on the flat part. They stick it in the ground and roast it by the fire. They turn it around once in a while.

I like that tsigi ggaay, nice. Whole thing, fish by the fire, gges kae (on a skewer).

Holly Reckord (1983a:62), an anthropologist who interviewed Ahtna in the 1970s, summarized some other ways Ahtna now prepare salmon.

Middle-aged and younger people also prepare the fish in a variety of nontraditional recipes. Canning is popular. Both cooked fish and soft-

smoked fish are canned and put up for the winter. One type of fish preparation which is becoming increasingly popular in the area is locally called "salmon strips." This preparation demands salting and smoking the fish in long licorice-shaped pieces. Salmon strips are a real favorite among both Natives and Whites, who sometimes call it "Indian candy."

Freezers have alleviated the burden of complicated preparation for some people. Most who have access to electricity have freezers. Freezing has meant that the traditional recipes for fresh fish can be eaten all year round. While some broiling and baking take place, salmon is generally stewed or poached, especially by the older people. The broth is considered to be especially healthful and is given to sick people. Today ba' is eaten cold, although in the past it was reconstituted by boiling in the same way as any dehydrated food. The researcher has never seen or been served boiled ba', but it may sometimes be served in Native households.

Unfortunately, the substitution of plastic for bark containers has meant that botulism can develop in the fermenting process, and in 1976 several people in Copper Center and Tazlina incurred food poisoning from this source (Reckord 1983a:62).

### *Summary*

Processing and storing salmon was an essential component of Ahtna fishing culture. The great lexical specificity in fish cutting terms presented in this chapter indicates the highly technical nature of Ahtna fish knowledge. The great lexical specificity both in fish anatomy and fish cutting terms is indicative of the highly technical nature of Ahtna fish knowledge. Optimal conditions for harvesting and drying salmon occurred in June and July when the weather was hot and dry and there were fewer flies to lay eggs in the drying salmon and fewer wasps to eat it.

Underground caches were constructed so that the dried fish remained dry but did not spoil. In addition to *ba'* Ahtna cured salmon backbones, made fermented fish, boiled salmon heads to make grease, and ate fresh salmon, preparing it in different ways depending on the condition of the fish.

## Chapter Eight AHTNA LEGENDS REFERRING TO SALMON



**Ugheldze' ba hghetnaade yet yaen' luk'ae c'ilaen.**  
**/They work on them well, and that is the only reason that the salmon exist.**  
– Martha Jackson

### *Introduction*

*Yenida'a* stories in Ahtna, literally 'long ago time,' are legends of the ancient past, when animals and people could talk to each other. These were stories told to children, especially in winter months when the nights were long. Several collections of Ahtna *yenida'a* stories have been published (Tansy 1997 [1982], and Billum 1979). These stories were told both for entertainment and instruction, much the same as Bible stories or Grimm's Fairy Tales. From these stories children were supposed to learn the rules which governed their actions and attitudes toward one another, and toward the animals, fish and plants, they lived on.

There are two *yenida'a* stories that center around salmon. Four expert Ahtna storytellers, Jake Tansy, Frank Stickwan, Fred Ewan, and the late Martha Jackson, have recorded versions of both of these stories. Kari made all of the recordings. Jane Nicholas, who is Jake's daughter, helped in the translation of her father's recording. Markle Pete and Virginia Pete helped to translate Frank Stickwan's narrative. Molly Galbreath and Virginia Pete helped to translate Martha Jackson's version of the *Bac'its'aadi* or Salmon Boy Story. Fred Ewan's version of the Salmon Boy Story was proofread by Fred and Molly Galbreath and Frank Stickwan's version was translated with Virginia Pete.

### *Two versions of the story of Raven, Seagull, and Eagle and two added comments*

In the beginning of the Jake Tansy and Frank Stickwan stories there are no salmon for the people or the birds to eat. Raven provokes a fight between Seagull and Eagle by spreading misinformation that the other bird is catching all the fish. During the fight one of the birds vomits up fish slime and scales and Raven covers himself with this and then goes to the home of the salmon. He then tricks the *luk'ae kaska'e* 'the chief of the salmon' into releasing the

salmon. In both renditions Raven sets a quota on the amount of salmon that are released, emphasizing that that is enough for the season. The versions differ in several ways. Jake Tansy uses the term *tsabaey* to refer to fish in general. Frank Stickwan designates the three species of salmon and steelehead as they are released. In Frank Stickwan's story people are instructed to make dip nets and scaffolds and the Copper River is changed from clear water to murky water so that the people can catch the salmon in the dip nets.

In the supplementary comments, Fred Ewan and Frank Stickwan note how Raven put the ballast stones in the salmon's head so he can swim properly, and Frank also notes that Raven first made salmon out of a stone, but he was too heavy, and so then he made him out of dead leaves, which accounts for why the salmon turn red when the leaves turn red.

*Version 1, by Jake Tansy*

Recorded in Cantwell on 11/16/00 recorded by J. Kari and translated with Jane Nicholas on 2/21/01. Ahtna Tape 106 Side B, begins at 16.00 to 26.30

One time yii c'a tihdan'a tah yanidan'a dahwdilaen dze', yanidan'a su gaa k'adii gaa Saghani Ggaay yii su udaaghe' k'adii ugheldze' 'sdelts'ii.  
/There is an old story, from long ago times. It is about Raven and how due to him we live nicely at this time.

Saghani gaa North tunadeł.  
/Raven was flying around in the north here.

Yii su danadze' hwghiya' xuc'a.  
/He was really intelligent.

Gaa kaskaе tse' yet dana'it'aan badahwdines?  
/You know about how he had brought back the chief's head here?  
\*JT refers to the story "Raven Brings Back the Chief's Head" in his 1982 book.

Yii su k'adii c'a tsabaey cu udaaghe' c'ilaen.  
/It is also due to him that the fish exist now.

Tsabaey 'udaa'a South Pole, Tsaal Kayax ghakos.  
/The fish were going along in a boat downstream at the South Pole, at Chinook Wind Village.

Łuk'ae hwtsicdze' łuk'ae tsicdze' uday'nelggaet.  
/All the salmon were blocked off there (from coming into the streams of the Copper River).

Hwnax kulaen de tsicdze' kunat'ots, ldatnetaani udatnelnen.  
/There was a house and they were all crowded inside and a door was closed off.

Du' koht'aene duugh xona tsabaey gha hwtsikac... tsabaey ka naadet [naadlaxi] xu hdelts'ii.  
/Around here the people were staying for (trying to catch) the swimming fish.  
*\*Jane Nicholas substituted naadlaxi.*

Nen' 'eli' yidi c'a saen 'udii yidi c'a 'eli kugha kana'idlaxe.  
/All over the country, for some reason all summer long they (salmon) were not swimming up to them.

Yii su cu Saghani Ggaay lu' udaa' 'udaa' tinac'idlaex de dae' hwdi'aan, 'udaa' tinac'idlaexde xuhts'e' tezyaa.  
/So then Raven went to the place called "downstream where they swim out", he went to the place "downstream where they swim out."

Xodze' 'udaa'a c'ena' daa'a ayaaf dze' cu 'unuux c'a tseh tsabaey gha hdelts'iix dze' 'eli yidi c'a kugha na'idlaxe.  
/So as he was going downstream on a creek, they (the people) were staying there in advance of the fish swimming to them.

'Eli' nay'tidlaxe, tsabaey kulaele.  
/But they were not coming back, there were no fish.

Yii lu' u 'udaa' tinac'idlaex de uday'tnitaan, hwdatnitaan datnelggaet k'adii gaa nt'ae.  
/Downstream there, where they swim out, it was blocked off, a door was closed and that is how it was there.

Xu tezyaa, gaa du' keletde'aa, tabaaghe 'udaa'a ayaaf.  
/He (Raven) went there and smoke was rising up, and someone was walking downstream on the beach.

'Ungge ya tezyaayi. Nalbaey yet yidi c'a 'eli'i yidi c'a 'eli' kaltaege, 'eli' ugheli nay'tidlaxe.  
/He went ashore to him. There was Seagull, and he was not catching anything. They (fish) were not running well.

C'eyuuni tsabaeye' u'et dadi'itnes gha? Duugh dentcaax, tsabaey ggaay.  
/Do you know the 'ghost fish' (alevin or new-born fish)? It is just so big (1 inch), a little fish.

Yii nitdentah keltaes, yii kae yii kae c'a i'da'aaaf.  
/Now and then he would catch one these (tiny fish) and he was surviving on that.

T'ae' 'eli' c'a nac'idlaxe et.  
/But nothing else was running.

"Yae' tsuughe nahw naene c'a 'sdelts'iix c'a 'eli yidi c'a negha na'idlaxe," dae' gaa Saghani lu nii.  
/"We stay below over this way, and somehow they do not swim to us either," Raven said here.

Yeldu' ic'a' na'ilggaac 'udaa'a c'a tah xona tezyaa c'a xuk'a ayaal.  
/So then he left him, he started downstream and he kept walking along there.

Denae c'a 'eli c'a quarter mile c'a 'eli' tda'isyaage.  
/He had not gone far from the head man (the Seagull), about a quarter mile.

Gaa tu c'a cu ketetde'aa.  
/Here there also was some smoke rising.

Ya niniyaayi 'et Sgulak. Sgulak, yi yezdaa.  
/He went up to him, it was Bald Eagle, Bald Eagle was sitting inside there.

"Yedi c'a 'eli'i sa na'idlaxe," dae' yetnii.  
/"Why is it that nothing is swimming to me?" he (Eagle) said to him.

"Ługha 'unuuxe cu naene yedi 'eli negha na'idlaxe dze' dghost'aen kae des duu c'a natesdaas de," cu Saghani 'et dae' nii.  
/"Well upstream nothing is swimming to us, and I have nothing to do but walk around," Raven said to him.

Tezyaa, tina'ilggaac. "Xona 'udaa' tiisyaa de dae' "  
/He left and he walked back out. " Now I will start downstream that way."

K'edze' 'un'e c'a Nalbaey yii gha uniniyaa ukunaghalggaac.  
/Returning upstream he came to Seagull and he went inside to him again.

"Danaa c'a n gaa dadaa' gaa ndaa zdaan."  
/"He is staying across there and downstream somewhere."

"Danii c'a sghanii c'a tsicdze' ketsayit'aa dze' sił yidi c'a 'eli isyaane.  
/"A ways upstream and behind me he is catching everything and I am not eating anything.

"Tsabaey tsicdze' ketsayiztsiy dze'," dae' łnii," xu łnii.  
/"He (Eagle) is catching all of the fish," he (Raven) told him (Gull).  
*But Raven lied and he turned back upstream and then he lied to Seagull about Eagle.*

"Yii cu sii yii yide dii ketsaistsiye? Tsabaey da c'ilaen xa ketsaistsiy c'a nts'e da niinen?" cu dae' yetnii.  
/"But me, what have I caught? If there are any fish to catch, what is he saying?" he (Gull) said to him.

Yidi gha cu ic'a' tina'ilggaac. K'edze' cu duughe 'unaa gaa Sgulak gha kenaghalggaac.  
/So then he went away from him again. Returning across here he went back to Eagle again.

"Danaat yen gha dazdaan," łnii.  
/"Across the way there that one (Seagull) is staying nearby," he (Raven) says.

"Nts'e da łnii?"  
/"What did he say to you?"

"Dadaa' c'a sghadaa' ya ti'ilggaac de cu 'eli' sii yidi c'a keiŋtaeye dze'," dae' nŋii.  
/He (Raven) says, "You have gone out to the one downstream of me, and now I am not catching anything."

"Siit cu yide di ke'etaes u'eŋ tinelggaac?"  
/If I am catching nothing, why should I go out with him?"

Ic'a' tina'ilggaac. "Xona 'udaa' tiisyaade su," yelnii.  
/So he left him again. "Well now I am starting downstream," he (Raven) told him (Eagle).

¶  
Xuc'a cu naaden gha kena'ilggaac c'a cu k'edze'  
/So then for a second time he went back across to him (to Seagull).

K'adii nts'e t'iidghine' xu' c'a tsicdze' cu.  
/Now he told him everything.

Nadaat, danaat sc'a' ketsayi'aa dze' sii cu s'eŋ yidi 'eli c'a keiŋtaeye de," yen ŋnii.  
/Downstream and across there he is taking everything from me, and I can't catch anything," he (Raven) told him (lying).

"Yii cu yide di sii ke'etaes, nts'e sa t'eniinen dadae'?"  
/Well I am catching nothing, so why is he saying that to me?" (Seagull says).

"Aen' 'udaa'a tiisyaade," xona ya tina'ilggaac.  
/Yes I am going downstream," and then he went back out to him.

Cu k'edze' 'unaa yen gha cu ŋkena'ilggaac. "Nadaat nŋii?"  
/Again he went back across to him (Seagull). "What is he saying to you?"

Xona yits'e' cu xona t'entŋii. 'Eli ses di c'a t'endesnii."  
/Well, downstream he is talking more about you. And I tell you, he says even worse things."

Nalbaey c'a su ghile' (c'a yii sasta nadahwdghelnen de) idaaghe' Sgulak gaxan yen,  
uyihwghizet.  
/So Seagull was the one (or I forget which one) or Eagle, due to him Eagle got very angry all of a sudden.

Tisgheghiniset dze' udae' ya sgheghiniset.  
/He went out ready to fight, he went downstream [upstream] to fight him

"Yide di gaa ngha ketsail'aayi di?"  
/How come I am not catching anything nearby you?"

"Cu nts'e nen si cu cu xu's ketsac'eghi'aa sdnii? Xu cu gaa nkonige' 'eŋ sa tnadaas," nŋii  
/How can you tell me that you are the one catching quantities (of fish)? Your news has come to me here," he tells him.

Gaa xona skahwghilaa.  
/So then here they fought.

Nalbaey or either Sgulak c'a su gaa itsaadle' k'et yiztał ba'ane.  
/Seagull (or Eagle) kicked him in his stomach out there.

Uzaa t'ae' nac'itsaak', nastkoy.  
/Everything came out of his (Seagull's) mouth, he vomited.

Kiigaat c'eyuuni tsabaeye' ggaay kekiilaes.  
/These were those tiny "ghost fish" (alevin or baby salmon) that they had been catching.

Yii tuu' tsicdze' uzaa ts'i'ilben, tsabaey tu'  
/This juice all came flowing out of his mouth, this fish juice.

Yehwna yii 'ehwk'eghiyaa dze', xona gaa Saghani.  
/Meanwhile Raven walked into it (the vomited fish) here.

Tsicdze' duughe det'astle' tsicdze' yii tlagh  
/He smeared this (vomited fish) all over his pants.

Hwk'edze' dae' c'egguusge' yaen' 'eli biyit'aen'e xu' delyaak.  
/He fixed himself, covering himself with the fish scales so that he could not be recognized.

Xona yae' xu lu' 'udaa' xona tinac'idlaex de hwts'e' tezyaa.  
/So then he started off downstream to where they (salmon) swim (out in the ocean).

'Udaa' yae' coxe ba'aa niniyaa. Ya tiniyaa ku'ilggaasi 'et.  
/Downstream he stopped outside there. He went to them there and he went on inside

"Nt'iyh, dan'edze' danadze' c'a ne'et nay'tesdlaex.  
/"Well, upstream so many (fish) are swimming back to us."  
*Raven lies in order to trick the boss of the fish.*

"Tsabaey cu sesde c'a 'eli c'a ghileh dze' xu'et.  
/"There are so very many fish.  
*Raven is covered with fish scales.*

"Gaa snihwdelggaet dze' lu' 'snghil'aeni.  
/"I am stranded here, look at me.

"Gaa 'eli xuc'a' de'elzene dze' c'egguusge' uc'aa tanatesdaas.  
/"Here, I can't keep myself away from all these fish scales.

"Gaa hwtsicdze' gaa sdghaege' c'egguusge' kae unihwdelggaet dze' da 'eli' nil'aene?" da dae'.  
/"Don't you see that I am stranded with all these fish scales on my coat?"

"Nts'ey c'a txasiit de nghe'aende.  
/"Sure I can see that" (The fish boss says).

Xodze' c'a t'enii, danadze' tsabaey tezdlaex 'exu.  
/So as he said this, a great amount of fish started to run there.

'Ungge tinac'idlaex de xona gaa lday'niitaaenen yen, "Ndaane sa tina'idlaexi dii 'adetniiyi?"  
/They were swimming back to the uplands, and the doorkeeper (the boss of the salmon) said  
"How can it be that they all have swam away from me?"  
*So Raven tricked him.*

Łdatnetaani lyeł dze' ts'iitniniłtses.  
/He grabbed that door and pulled it open.

Tsıcdze' tsabaey tıbaan'dghelnen.  
/All the fish swam out in a group

'Utsii ts'itu' tuu 'etaghıtaeł, nts'e c'a dae' dyaak.  
/Below on the river (the Copper River) it happened that they (the fish) just poured into the water.

Xoxoxon!  
/Hey!

Xodze' king salmon k'adii c'a ts'es ggaay utse' yidezdlaa udetniiy k'ał'aa c'a kenii xende.  
/So they say that it is true that now the king salmon has little rocks in its head.

King salmon 'utsii ts'itu' 'etabaan'dghelneni 'eł k'ali'i hwts'i'ilaxe.  
/When the school of king salmon first entered the river down below, they were unable to swim  
away.

Katayghiyiis.  
/They were floating up to the surface.

Gaa yet xona gaa Saghani lu 'utsii ehnađıyaal dze'.  
/So here Raven jumped down to the shore.

Gaa yiıttlet dze' ts'es ggaay delggayi ggaay lu du' ts'a'ane tadat'aeni yii cu tsighaan' yidghıłdeł.  
/He threw these little rocks, little white ones that are barely visible, and these went into its (king  
salmon's) brain.

K'edze 'ungge ya tanałyaal.  
/So then he jumped up.

"C'etiye hwgha na'ilyaak eł."  
/"You are doing too much (releasing too many fish).

Idacen'diniłkay xona gaa titsani'aa.  
/He then blocked off the doorway when a quantity (of salmon) had come out.

Yen li'i idacen'diłkaas de k'adii tsabaey kutasđlaex.  
/If he had not blocked off the door now there would be no fish.  
*Thus Raven set an allocation on the annual fish migration.*

Idacen'diniłkay lu, k'adii lu every year yet hwnax tinadełi su natedłax.  
/He has that door blocked off, and now every year they come out of that house and then they  
swim back.

Tsabaey ggaay luk'ae ts'es ggaay tsighaan' yidghitdaedli 'et gaa tanayghitgheli 'et cu hwts'itahw c'enilaex.

/Those little fish, the salmon in whose brains he had put the little rocks, were now down under the water, and they were able to swim straight.

Xona gaa ina' c'a xu hdelts'iix, xu 'eli tsabaey c'a yidaxe.

/So now they are able to stay in the streams where there had been no fish.

Nalbaey 'et cu Sgulak 'et yii c'a yedi c'a 'eli' isyaane de.

/So Seagull and Eagle had not been eating anything.

Tuu tuu c'ena' 'ungget tateztaeli k'e nihwdelnen.

/In the water of the river they [the school of fish] were coming into the uplands, they came like flowing water.

Hwtsicdze' 'ungge xu' tezdlaex.

/So they were all swimming upland.

'Ungge ik'eze naalyet, tsabaey tezdlaexi 'et i'et naseldghalgaac.

/Jumping alongside them as the fish were coming, he (Raven) hollered out.

'Ungga c'a xona hdelts'ii de gaa tsabaey dae' 'utsiit tez'aani yibaan'c'dghalnen.

/And as they (the people) stayed in the uplands, the fish came in groups into the fishtraps down by the water.

K'adii xu's cu gaa yanidan'a xona gaa badahwdilaen.

/So this is how the story goes.

Xona yehwk'e end of the story.

/That is the end of the story.

Ye 'eli'i Saghani Ggaay 'eli' udaa'a xu' tiyaale de k'adii dae' tsabaey xutastle'e xu'et 'statniige tsabaey c'ghile'dze'

/So if Raven had not gone downstream, now there would be no fish, and we would not know about the fish.

Dae' su xu t'ghit'e

/And this is how it was.

Dae' xona end of the story cu n'et nahwghalnic.

/And that is the end of the story I am telling you.

*Version2 by Frank Stickwan*

Recorded by James Kari on 8/23/00 in Tazlina and translated with Markle Pete and Virginia Pete on 1/23/01. AT 123, side A. 3 min. to 11 min.

Saghani Ggaay, Saghani Ggaay he made a canoe, koht'aene k'e.  
/Raven made a canoe, like a person

He went down the canoe, you know.

Cenuu yii nic'anikaen, Saghani Ggaay, u'et Nalbaey gha nikaen dze'  
/He set out from shore in the canoe. And Raven paddled to the Seagull's place.

Nalbaey gha niyaayi.  
/He went to Seagull.

Nalbaey i'et ghida'. Saghani Ggaay he look, i'et ghida', i'et zdaa.  
/He stayed with Seagull. Raven looked and he stayed with him, he stayed with him.

Pretty soon yet cenuu yii naadyaade he went down, Saghani Ggaay he went down again.  
/Pretty soon he got back in the canoe and went down again, he went down again.

'Udaa'a tezkaen, natezkaen. Sgulak he stay there. He come to that place, in there.  
/He started downstream and he started padding. Eagle was staying there. He came to that place.

Saghani Ggaay he tell story. Saghani Ggaay he talk i'et nakolnic sunt'ae.  
/Raven told him a story. Raven spoke with him.

Sgulak pretty soon he get (mad).

"Ooh naniidze' naniidze' sii s'et danghatnii' dze'," t'iitnii.  
/"Ooh upstream something was said to me about you!" he (Raven) told him.  
*Raven is spreading gossip.*

Nalbaey nanit'e', uyii ts'akut'eh. Dae' 'ele' ugheldze' nts'e nts'e setnii xu'a dinii sii da setnii den."  
/Nalbaey (Seagull) scowled, and he got angry. "You are telling me something that is not good."

"Ya' nen si cu 'ene' na xu' ts'i'tnilaage 'sdatniit en, 'ene', 'ele' n'et nahwgholnigi," dae' kiitnii.  
/"Well I don't want such gossip being said by someone. No, I won't tell you anything," he (Seagull) said to him.

"Dadzineh. N'elnahwgholnic nts'e t'iitnii xu'a dinii den, yeah."  
/"You be quiet. Should I tell you something, and then he tells someone (about it), it is as if you had told the truth.

Sgulak t'ae' uyihwghizet sunt'ae.  
/Eagle was really angry.

Deke' yi'eł nandel'aes. (*F.S. laughs*)  
/He (Eagle) put on his moccasins.

Its'e' tgge' sghae ghiset dze'.  
/He (Eagle) rose up about to fight with him (Seagull).

Saghani Ggaay boat yae' cenuu yii naghaltlet. 'Unii ik'eze nae' 'et [nikaen] ghida'.  
/Then Raven jumped down into the canoe. He came alongside them upstream.  
*\*Virginia Pete substituted nikaen.*

"Ho ho, 'uniit Sgulak xu' ts'itgge' sghae ghiniset dze', he fight with Nalbaey you know.  
/"Oh that Eagle upstream has gotten into a fight. He is fighting with Seagull, you know.

"I'eł skahwghi'aan."  
/"He fought with him."

"Nalbaey yae' kughaltaen dze' ghade. C'etl'ets' ya ut'aa uzaa ts'i'itsaa' dze'.  
/"The seagull had been knocked down there. Fish slime was spewing out of his mouth down beneath him."

Saghani Ggaay xu' ts'i'iltlet dze' yet yiyeł xu.  
/Raven came out then and grabbed it (the slime-vomit).

Decenuu' yii ghitlae'.  
/He put it (the vomit) into his canoe.

Cu k'a dae' skahwghilaa t'ghat'aen'. Sgulak iyii cu yae' kughaltaen.  
/So that was the big fight that occurred. Eagle had knocked him (Seagull) down.

Cu yen ts'e xu' he throw up. Fish tl'ese' uzaa ts'iinitaa's.  
/And he then vomited. Fish slime spewed out of his mouth.

Yiyeł dze' uts'en cenuu yii ghitlae' nts'en, cenuu yii naghityaał dze'.  
/So he (Raven) put that stuff (vomit) in the canoe, and then he jumped into the canoe.

Saghani Ggaay nic'ana'itkaen, du' c'et'ogh niłghaa.  
/So Raven set out from shore again, he was paddling on both sides.

Ghatne 'et xu nsuundze' niłk'edelyes ugheldze'.  
/Those guys (Eagle and Seagull) later made peace nicely with each other.

Saghani Ggaay yae' Iso'ł. Udaa' ts'ii'tnilaa den.  
/Raven was the one who had lied. It was because of his gossip.

'Udaa'a xu' akaeł dze' yide k'e tkut'ae de k'et, t'ae' naxu t'aen nii hw'eł  
/So he (Raven) paddled on downstream wondering what would happen next.

Koht'aene gha ts'inikaen dze', boat dangheitl'uun'.  
/He came upon some people (some human beings) and he tied up his boat.

Xu'a tezyaa dze' daniyaa dze'.  
/He started off that way and he entered.

Koht'aene c'a 'ele' ts'ltsaeyde 'sdit'aen.  
/"We never see people around here.

"Nt'ii c'a de xu' ts'iniyaa den?" yetnii.  
/"Where have you come from?" he (a person) said to him.

"Ho ho ho, dan'edze' t'ae' luk'ae nilaex dze', xu'eł gha luk'ae dae' hoo hoo naat' aede  
k'a su nesyeł tah.

/"Ho, ho, ho, from upstream where the salmon are running. I have been up without sleeping  
(working) with salmon.  
*Thus Raven has changed his story.*

Xona taade naat' aede niisyaat luk'ae de nilaexdze' xu xuses.  
/I have been up for three days without sleeping since the salmon arrived.

"Łuk'ae Kaskaē' gaanen ndoxe nilaexen ndoxe su nlaex," t'iitnii.  
/"There is this guy, the Boss of the Salmon, wherever he swims the fish swim," they said to him.

"Nduux ts'iinilaex de," t'iitnii.  
/"Where do they swim from,?" they (the people) said to him.

"'Utsuugh cenuu (dzi)yii nghuł'aen'.  
/"You can look in the canoe by the shore."

'Utsene tsihdeyaa, decenuu' yighiyaali  
/He (the Person) went to the shore and got in his boat

Ts'iide luk'ae t'ies uyii nadestlae'.  
/There was a big pile of fish slime inside (the boat).

My goodness, lotsa luk'ae t'ese' ucenuu' idadeztlae'.  
/"My goodness, there is all this fish slime in his boat."

'Ał'a he got in, "Nt'ii c'a yen nduux ts'iinilaex de?" t'yitnii sunt'ae.  
/So he got in (the boat), "Well where do they swim from?" he (the man) said to him.

"Ghanuux 'utsuughe 'unggu ghat yedu' łdatnitaani du' yae' dghoł'axi cu dghu."  
/"Way back there and down toward shore and upland there, you should open that door." (Raven  
told him).

lyae' hdełt'ak xu,  
/So they opened it (that door).

Gee whiz! łuk'ae titsa'i'aa'.  
/Gee whiz! Sockeye salmon rushed out in a big school.

Oh! Oh! Nan'e dae' fish łuk'ae dae' titsani'aa.  
/Oh! So then sockeye salmon came out in a group going upstream.

"Du' xona, xona k'a danadonhyeł gha, xona xunt'ae.  
/"That's enough, okay now close it off again now, that's enough."

"Sakughitcaax dze' xona ni' c'ena' ghilaex ne."  
/"That is the right amount. Let these swim in the streams."

"Xanggadi cu yii yae' doht'iisen,"  
/"There is another one (a door) for you to open."

Cu yii yae' delt'ak yii łuk'ece'e titsa'i'aa, łuk'ece'e du'.  
/So this one was opened and a big school of king salmon rushed out, king salmon.

"Yii c'a xona yet k'ak'a xona."  
/"Okay, that is just enough."

Cu c'a nggadi cu kiic'e dadzełi ghat titsa'i'aa.  
/And then there was another (door), and the steelhead [in a school] rushed out from there.

All c'a xangge yae' destaani cu 'uyax xay luugge' n'e.  
/When another door was opened, from inside there the silver salmon came out.

"Du' xona that's good enough. Xona sakughitcaaxi nilaexi xu xona."  
/"That is enough, that's good enough. That is the right amount of fish to run now."

Nahwdazeł xu nelt'e'dze' kanaxughudya' dghut'aen'e  
/"You should have enough for one season.

Nahwdazeł su k'e bii yaen'i duughe  
/"This is just enough for a season."

He holler like hell, cenuu yii naghityaati.  
/He Raven hollered like hell and jumped back in the canoe.

He went back, n'edze' natestkaen dze'  
/He went back and he started to paddle back upstream.

Cu sedze' naxu "Oh oh ho, tac'alaxi nadaa' da'ane du' ti'sdlaesi 'et ciisi n 'et 'uxghaan.  
/So (going) on ahead there "Oh, oh the fish are running downstream on the other side, so you better make some fish fence grating and some dipnets."

Łuk'ae t'ae', t'ae' duugh alax xona.  
/The salmon were swimming by there then.

T'ae' hyilyaa', yen ndoxe ts'italaxi titat'iili.  
/But they (the people) did not believe him. "Where will the fish be coming from?"

Gee whiz, nic'ankoltse' te'sdlaesi 'et.  
/Gee whiz, they started to build dipnet platforms with grating.

Badahxughaan ku'etnii dze' te'sdlaesi 'et kae ghedghaan dze'.  
/And they installed the grating for it as he had told them, as they made them (the dipnet platforms).

Nic'ankultsiin ht'ehghilaak.  
/They finished making the platforms.

Gee whiz, pretty soon luk'ae xu' tinilaex nt'ae.  
/Gee whiz, pretty soon the salmon arrived there.

Tuu hwtitnelggay nt'ae.  
/The water was very clear.

Taciisihghi'aan nothing there. Fish see that thing yet, he can't 'ele' ciisi yighulaexi.  
/They would put dipnets in the water, but they would get nothing.  
\*The fish could see that dipnet. So the salmon would not swim into the dipnet.

T'axu clear water in there, nelggaydze' tuu.  
/Just was clear water in there (in Copper River), clear water.

All night nahghitniigen, they never get nothing.  
/They tried dipping all night long, but they never got anything.

Fish that ciisi inel'aen dze' t'ae' 'ele' ka'sc'lttaele sunt'ae.  
/When that fish sees that dip net, then they never can catch anything.

Hmmm. 'Uniidze Saghanii Ggaay nii. 'Utsene tsinadiyaade du' 'uyggu natsi'tetses sunt'ae.  
/So Raven was talking upstream there. He walked on down to the shore and was looking around down below.

Ts'es lggayi ggaay nats'i'aan xunggu t'ae'.  
/He found some little white rocks above there.

Łdu' luk'ae 'et xuyae' ghalaxi, ts'i'steztsaet xu.  
/Then he tossed them out where the salmon were running.

Utsighaan' yii yeltson', gee! Tuu bestl'es yii nezdlaet, Copper River in there.  
/They (white rocks) went into their (salmon's) brains, and gee! The water became muddy, the Copper River here.

Tanaciisihghi'aan tdu' gee whiz, i'et kac'alyaet.  
/They were dipnetting again, and gee whiz, now they were catching them.

T'ae' 'unggu nastsaa' xu' t'hyilaak.  
/They had a huge amount up on the shore.

My goodness, t'ae' yits'ehdedae't 'et hwt'ae' ku'et nilaex dze'  
/My goodness they were surprised that so many salmon had come to them.

Yihwts'en tkat'aan dze' all the way, every spring, tuk'ae na'aaye' 'i'aas de all they come, fish  
/Ever since that happened, every spring, when June (salmon month) comes, all the fish come.

Dzaen c'a 'adii xu'a t'aen dze', river he come, tuk'ae steady c'a naadlax every daan' naxudlaex  
/Today this is how it is. The salmon come back steadily every time it turns spring.

Luk'ae all the way that way xu' tu, xu'et uc'ezdlaen xudyaak yihwts'en you know.  
/The salmon are that way, ever since that time the salmon were created for them.  
That's far as I know that story.

### *Further Details of When Raven Made the Salmon told by Frank Stickwan*

Recorded by James Kari on 7/19/00 in Tanzlina and translated with Virginia Pete.  
Side A, 14.00 to 16.40

Yae' na'aaxe c'et'aan'.  
/There are those leaves were out there,

And the first time tdu' ts'es dakiinin'aa, ts'es rock tuk'ae ltsiin.  
/At first (Raven) had set down a rock (to make the fish), a rock that was made like a fish.

Yet he can't come out, he can't go no place, just stop.

'Uyggu taeghe dae' taghidaetl'. Dae' he can't go to the lake. Ts'elk'ey c'a 'ele' ts'i'ilaxe.  
/He (fish) just went to down on the bottom of the lake all the time. He can't go to the lake.

He stuck dae' dyilaakde.  
/He got stuck like that.

Na'aaxe c'et'aan' gha nelyaan c'et'aan' su.  
/Outside there leaves were growing.

Yi 'uniidze yet tuk'ae yiitsiin. Salmon fish.  
/So he (Raven) made a fish with those (leaves) from upstream, he made a salmon.

Cu yet tayghiltaeni 'et yii 'utggu takaa'a de loolax tkat'aen.  
/So he threw that salmon fish in the water, and it was swimming around on the surface.

In there he never go down.

And that ts'es ggaay, ya 'uzniic, ts'es lggayi ggaay ya 'uzniic.  
/And so then he got for it some little rocks, he got for it some small white rocks.

Haha, itsighaan' yetsighitsaet, go down to the titaynildaet!' uyggu taeghe.  
/So Raven threw them into the fish's brain, so then they could float on down to the bottom of the water.

Nitde tuu yet c'a hwt'ae' best'es nezdlaen xudyaak su.  
/Here and there the water had become very muddy.

And that fish no more yihwna'aene, nothing, telaxdze' all detnes k'e deghizet.  
/And that fish can't see anything through it (the water), but as he swims he can tell where he navigating.

*Thus Raven made the Copper River murky so that the salmon will not be able to see the dipnet.*

'Use that unaat' unaat' nt'ae den c'et'aan' 'at k'a k'ent'aey.  
/And his outer flesh, the flesh (of the fish) is similar to the leaves (in color).

Unaa't yii, you know what that means? Unaat', meat them, utsen', just like leaf that thing.  
/His flesh, you know what that means? His meat is the same color as the leaves (in fall).

You see nahwluude two months more that's all left and leaves na'aaxe c'et'aan' nanatnataghat bika dats'esdze'.  
/You see in the fall time two months (from now), outside there the leaves will fall and the wind will blow them away.

Dead, just like dead utaniit, c'et'aan' nataghalde.  
/All the leaves will have died and the leaves will fall.

Fish the same way he do that. At same time (as) that, he's dead all that.

C'et'aan' fish yildaan' nlaen  
/The fish dies when the leaves change.

I'el talax everywhere 'unggu everywhere 'unggu talaxde he's dead already.  
/Everywhere he is swimming with them (the fallen leaves). As he swims in the uplands that is just the same, he is dead already.

C'et'aan' he drop to the ground.  
/The leaves drop to the ground.

Fish same way he do that.

Utsen' tic'a 'utggu uk'a'a yi'iltiin, nay't'aan', red.  
/His flesh becomes the color of the leaves out in the woods up above, it turns red.

That's what that story says.

*Further Details of When Raven Made the Salmon told by Fred Ewan*

Recorded by J. Kari with Fred Ewan in Gulkana on 10/6/00. Ahtna Tape 126, Side A, from 9.00.

Saghani Ggaay luk'ae luk'ae ghighaan, you know.  
/Raven made the salmon, you know.

Not only luk'ae, tsabaey too.  
/Not only salmon, but the non-salmon fish too.

And he fix it and.

"Datggedze' c'ena' ngge' xona try ts'e' tohnaexi.  
/"You try to swim up the streams, go above and upland in the streams (*Raven tells the fish*).

"Start tohnaex," he tell em you know. "Okay."  
/"You start now," he tells them. "Okay."

I'et tdu' tezdlaex.  
/Well, the fish started running.

"No. Ts'aghilt'eh kol."  
/No, they are not doing well, nothing."

"T'ae' xona taseftaesi, 'ele' ugheli c'a hwghileh," he say.  
/"I am just floating in the water, this is not good," he (the salmon) said.

'Ele' ugheli hwghileh. 'Ele' c'a 'utggu ske' c'a 'unuuxe udghilae, nothing, I got nothing to obey.  
/This is not good. It (water level) does not come above my feet. I've got nothing to follow  
*The fish can't stay down in the water.*

'Ele' c'a 'ughu kus'edze ts'e' t'ae' stiye kol," he say.  
/I can't step past the place. I have no strength," he said.

Yeldu' "Dnaey ts'e' txohtaexi tseh," t'iitnii.  
/Then, "I'll swim to the people later on."

Xona txohtaesi k'et tgho'iis you know.  
/"Now I want to go to bed."

Itse' its'i'ni'aan dze' yii ts'es iyiighi'aani 'et,  
/He (Raven) took his (salmon's) head off, and he put a stone inside him.

Coxu tsuughe 'ungge natizdlaexi n'et.  
/Again he started to swim down by the shore and upland.

"Oo' detiye se'dghildes," he say.  
/"Oh, these are too heavy for me," he said.

'Ele' ugheli hwghileh. Yae' 'uyygu kenŋa's, sentsiis k'edghuninitset tkudyaak," he say.  
/"This is not good. I am striking down on the bottom, my nose is hitting there.

Yeldu' coxo deltsi'i xu' dyilaak.  
/So then he made them (the stones) a little smaller.

Ts'estle they call it. Ts'estle. Delggayi xunt'ae, really delggayi.  
/Little rocks, they call them. Little rocks. They are white, really white.

Yii itse' yinadghi'aan dze' xona t'aat coxe tsuughe ngge' natizdlaex.  
/He put these in his head and then again he swam by the shore.

Uk'e natesdlaex, xugha ts'ina'idyya.  
/He was swimming on it, and he came back out to them.

"Ugheli, ugheli xona tdu' 'ele' c'a 'uyygu c'a niista't, 'ele' c'a katasettaeyi  
/"It's good, it's good enough. I am not hitting down the bottom, and I am not floating up on the surface."

"Nts'e ine'esendze' xuc'a 'el'aen.  
/"I am able to do what I want to.

"Ndoxe txosya'i ine'esen xuk'a ŋoosyaat xu saen, xona," he say.  
/"I can go where I want. I will be able to go around like this in the summer then,"

"Xona xu'a xu'a dghut'e'de," t'iinii. "Xu'a dghut'e' de,"  
/"So then you should be like this," he said to them. "You should be this way."

"Xu' c'a xona gaani nen' k'e xu'a xona ŋuk'ae 'el' tghilaet dze' adet ne'e ŋaan'ts'e c'a xu'a dghut'e'  
de'," dae' yelnii.  
/"So now you will be the salmon of this country, and you will truly be able to swim around in this manner," thus he told him.

Xuh c'a yaen' badahwde'estnes.  
/This is all I know about it.

### *Three versions of the Salmon Boy Story: Dinac'iighiltaenen or Bac'its'aadi*

These stories have sketchy plot lines. They include collections of sayings told to Ahtna children about the Salmon Boy, and why Ahtna people must treat the salmon harvest with proper care and respect. The stories are about death and rebirth with the seasonal cycles. All three versions tell how and why the small king salmon is given special ceremonial treatment. When it is caught, a small king salmon is wrapped in down feathers and set aside to be honored as the returning Salmon Boy. The versions by Fred Ewan and Frank Stickwan mention that the Salmon Boy goes back out to sea with the passing of the juvenile salmon.

In each version the Salmon Boy is referred to with an intriguing verb phrase: *dinac'iighiltaenen*. The underlying structure of this verb is: *di* 'inside'+*na* 'again'+*c*' 'something/someone' (indefinite subject)+ 'third pers. object' (him)+ *gh+N* 'perfective (past)'+ *t* 'classifier'+ *taen* stem 'handle animate' + *en* 'the one who'. A literal translation would be 'the one whom someone has put back inside again.' A phrase of mystical capture, the Salmon Boy has been put again inside the dipnet by 'someone.' In one interpretation God put him there. Katie John commented on the term: "Dinac'iighiltaen we used to say, dinayghiltaen means 'he pick it up and put it back to the place it belongs to.' That's what it mean, *dinac'iighiltaen*."

*Version 1 by Martha Jackson*

Recorded by J. Kari on March 21, 1982 with Martha Jackson. Transcribed by J. Kari in 8/00 and proofread and translated with Molly Galbreath and Virginia Pete. Ahtna Tape 32, 2 min. 45 sec in Fairbanks;

Martha commented: "*Bac'its'aadi*" is a small king. The fish is not eaten. This fish used to be a man. He would tell the people where to fish." The word *ba'ests'aat* means 'I really think about it.'"

Yenidan'a nahwgholnic de 'adii.  
/I will tell an old-time story now.

Łuk'ae 'adii Bac'its'aadi koniiyi gha nahwgholnicde.  
/I will tell the story of the salmon that is called Bac'its'aadi, 'the one that is highly regarded'.

Yenidan'a koht'aene tsaaxu natedaasen.  
/Anciently the salmon man was going back and forth to the cache.  
*The person bringing the fish is the Salmon Boy.*

'Udii nakeytef'aas tsaax; tsaax t'aa ba' nadelyaes.  
/All the time they were sending him to the cache; and he was bringing back dry fish from the cache.

Ba' nadelyaes su.  
/He was bringing back dry fish.

Cu taaxu natesdyaayi 'et dae' xuk'edighae't, xukol.  
/He went there again for the third time, and he disappeared, there was no one.

Kiic'a' tezyaayi 'et tcentsaa t'aa lu', k'ay' uk'ay' udatcezi yaen' datsatnini'ax.  
/They (the people) went away from him, and there the log cache was full of bundles (of dried fish) tied with willows.

Koht'aene tdu' 'et kustna' 'ooxe.  
/But a man (the Salmon Boy) had disappeared out there.

Dinac'iighihtaen dae' dinac'iighihtaen dae'.  
/Someone had put him inside, thus someone had put him back inside.

Łuk'ae yuzniic.  
/Thus the fish had taken him (back into the water).

Nahwdezet tdu' xona ciisi yii xona fish 'et tke'aeni 'et.  
/Some time passed, and then they were fishing there with a dipnet.

Ciisi yii naadlaex, Bac'its'aadi ciisi yii naadlaex, yii daaghe' su Bac'its'aadi udetnii de.  
/He (the salmon boy) swam back into the dipnet, 'the one that is highly regarded' swam back into the dipnet, and that is why he/it (a small king salmon) is called 'the one that is highly regarded'.

*\*For the first time the Salmon Boy is called by the name Bac'its'aadi.*

Dae' łuk'ae 'adii ugheldze' ba hghetnaa de yet yaen'.  
/Thus now the salmon run well only for those who work on them carefully.

Yet yaen' 'ungget uyehts'e' telax.  
/Only then do they swim up to someone.

Yet koht'aene koht'aene ts'akut'edze' ba hghetnaa de, 'ele' ugheldze' ba hghetnah den,  
/If the people work on them badly, if they do not work on them nicely,

koht'aene its'e' skudetniiyede, 'ele' its'e' tesdlaxe.  
/or if a person is lazy towards them, then they (the fish) will not run to him.

Koht'aene ugheldze' yaatnaade yet yaen' anoxt'e' 'adii łuk'ae łuk'ae c'a yii 'adii c'a xu'a kot'aen.  
/It is because of the people who work on them (the salmon) well, that the salmon still exist now.

Ugheldze' ba hghetnaade yet yaen' łuk'ae c'ilaen.  
/They work on them well, and that is the only reason that the salmon exist.

Kiits'e' skudetniige 'ele' udatahe ugheli ghileh de, yeldu' 'ele' k'adii kestlaxe,  
/The ones who are lazy, or whose gear is not good, do not have fish running to them at this time.

Yii gha' su Bac'its'aadi, ts'utsae kekiighihtaes de utseh co's kii'et nadghilae tuu yii tanakiighihtaes.  
/That is why anciently when they got 'the one that is highly regarded' (in a dipnet), they first would wrap it in down feathers and put it back in the water.

'Ele' ghizilghaele.  
/They did not harvest it

Dae' xu'et Bac'its'aadi udi'aan.  
/Thus it is called 'the one that is highly regarded'

*Versio n 2 by Fred Ewan*

Recorded by J. Kari with Fred Ewan on 7/17/00 in Gulkana. Transcribed by J. Kari, 8/00 and proofread with Fred Ewan and Molly Galbreath. Ahtna Tape 107, Side A 14.45 to 21.30.

Bac'its'aadi, little king salmon, when they get that, that's really good Indian way. You get it, you gotta save it. You take it outa the wheel, you gotta dry it, you not gonna eat it though. They don't bother that thing. If you bother or talk about that, foolish way, you go and drown that's all. The fish take you back they say, you know [when someone drowns].

*main story begins*

Dinac'iighihtaen ngha nahwgholnicde ts'exa'a.  
/I am going to tell you "Someone put him back inside"

Saende c'anizet, saende c'anizet, ciisi k'ae c'anizet, ciisi zdlaeni cu łuk'ae gha ciisi zdlaeni 'eł c'anizet.  
/In summer he has drowned and in summer he has drowned, and at the dipnet location he has drowned. Where the dipnetting for the salmon occurred, he has drowned.

Łuk'ae dinayghihtaen.  
/The salmon put him (the Salmon Boy) back inside (a dipnet)

Kanaatighihtaeni k'edyak dze', kanaatighihtaeni k'edyak dze' all  
/It is as if it fell asleep, it is as if it fell asleep and

All ts'a'ane 'ele' uk'e nahwidzele.  
/And then finally he did not wake up.

Ltaen dze' yaen' nt'ae.  
/It just lay there dead.

Xona, xona pretty soon, "K'atle kuc'a' natxasdaat," dae' ku'etnii everyone.  
/So then pretty soon, it (the dead fish/Salmon Boy speaks) told all of them, "Soon I am going away from them."

T'ae' ne'eł koht'aene naghalt'e'dze' you know. Ciisi k'ae hdelts'ii da'a.  
/There were very many people with us you know. They had been staying at the dipnet site.

"Kuc'a' natxasdaat."  
/"I am going to leave them."

"Nt'ii c'a nts'e dinii?"  
/"What? What are you saying?"

"Dinac'isghihtaen sigu," he say.  
/"Someone has put me back inside (the dipnet)," he said.

“Saene si cu c’anset desu saane tah kiisyaadze’. Yet su dinac’isghittaen.  
/“In the summer I drowned just when I barely got here. Right there someone has put me back inside.”

“Xu’ xu’et ’estnes, kuhwnaxe’ c’a ’et ’estnes.  
/“I know them, I know their houses too.

“Łuk’ae ’iine xa’ koht’aene c’ilaen dze’ c’a xe’et ’estnes.  
/“The salmon people and I know that these are human beings

“Xugha dansyaa. Dzaxdze’ ugheldze’ hdelts’ii.  
/“I have come inside for them. They live really well.

“Xuc’a’ natxasdaat.  
/“I will go away from them again.

Uta’ c’a ’et baan n’et uk’e tsaghdelyaes, uk’e tsaghdelyaes.  
/His father and mother are crying for him, they are crying for him.

“You can’t... Nts’e de cu nec’a’ natghidaat? Ndahwts’e’ de cu natghidaat?  
/“You can’t... How come you are going to leave us? Where are you going to go?”

“Łuk’ae su dinasghittaen le’ saene.  
/“The salmon have put me back inside (the dipnet) in the summer.

“Ghaye Bac’its’aadi yii lu ltaen dze’ yii bother txel’aendze’ yii gha ’et txiistna’ dze’  
/“When the “Bac’its’aadi” was laying dead there, I was bothering it as I started to work on it.  
*The boy was taken by the salmon because he had bothered ‘the one that is highly regarded’.*

“Łdu’ dinasghittaen, C’anset desi cu, C’anset desicu. Coxo nansdyaade,” he say.  
/“Then he put me back inside. I drowned just then. I drowned. I have come back again,” he said.

“Xona ’adii yek’ets’en xuc’a’ natxasdaat dze’ xona ’ele’ c’a xugha nadzghasdaali c’a.  
/“And now later on I will leave them again, but then I will not come back to them.

“He say ’ele’ c’a xugha nadzghasdaali,” he say.  
/“I will not come back to them,” he said.

T’ae’ c’a xona luk’ae ’et ah txasdaat all time,” dae’ kudghine’, you know.  
/“I will just stay with the salmon all the time,” he told them this.

Yii daaghe’ sicu dinac’iighittaen.  
/This is why someone put him back inside.

Udetnii tanaax tsoxe xona ’uniidze’ ts’inac’lthkae’s.  
/It is said as the water first moves, something is coming from upstream (in a boat)  
*These are the juvenile salmon fry beginning their downstream migration, as if in a boat, after the ice goes out.*

Xona 'uniidze' ts'inac'itkae's. Xona, nakadet," dae' ku'elnii.

/“Now someone is coming from upstream (in a boat). Now they are returning,” he told them.  
*Fred clarifies that the Salmon Boy, who is with the spawning salmon, is the one telling them that the juvenile smolt will be swimming back downstream.*

“Yidi 'a dinii? 'Ele' cu ts'ehwnil'aeni, 'ele' c'a 'snil'aene.”

/“What are you saying? We can't see, we don't see them.”

“Nts'e c'a dulaex du' 'utggu tuu yii sii yaen' tsoxe nghil'aen,” he say.

/“This is what you should do first when you see me in the water,” he said.

“Taade denesde c'a su maybe ten c'a su nahwnesdaat, hwlazaan de su c'a nahwnesdaat le'.

/“I might spend three or four days, maybe I will spend ten days.

“I'et coxo coxo another one 'uniidze' na'itkae's. Coxo 'uniidze' nac'itkae's.

/“With that again another one can come back from upstream (in a boat). Another came from upstream.

“Yii c'a 'ele' uyii nadzghasdaale.

/“I won't go back inside.

“Unsghu daa'a tah, 'usghu daa'a tah natayutatiit.

/“It (they) will be floating by (the smolt in a boat) going outside and downstream (into the ocean), outside and downstream.

Yii c'a luk'ae you know, kata'ile'i tah, you know, yii su t'iinii.

/Then the salmon, the ones spawning, are speaking.

Yeldu' xona taaden ldu' ndoxe tah c'a xona September benghaan' saeni gha c'asu cu kughile' yeldu' xona last one.

/And then three times (runs) somewhere then in September, “half summer” is the last run.

Xona naatkos, xona all kiik'e tsaghdelyaeyi, hyuten'i c'a' kol, you know.

/Then (in the fall) then they are going back in a boat, and they are all crying for them, and they (the people) are not keeping any of them.

Xona si cu ugheldze' si cu nse' tghasyaat dze'”, he say.

/“Then I will go outside nicely,” he says.

*The smolt will be going down as the spawning salmon arrive.*

Yet su, yet su dinac'iighil'taen udetniide.

/So that then is how it is said: someone has put him back inside.

Xuk'a 'unset kiik'e ciis 'el'iix, ciisi uk'e t'el'iighi, yii c'a gha ts'inityaat dae' du'.

/So when someone is out on the dipnet platform, as the dipnet platform is being used, then he [fish] jumps out for it.

'Unse tah taghityaat, he went drowned, you know.

/He [the Salmon Boy] jumps ahead and drowns in the water.

Yet su dinac'iighitaen.

/There someone has put him back inside.

*The phrase of mystical capture is repeated.*

Xay na'idyaade udetnii, yet xay na'idyaade udetnii you know.

/It is said that he had gone back [to the ocean] in winter, he had gone back in winter it is said.

Tabaaghe naadaat, you know, xona naadaali 'et, xona luk'ae gha xaatna' de'.

/He is returning toward the shore, and he is returning as they are working on the fish.

Yax xu xwts'ina'idyaaye 'et nts'e nayadadez'aan 'unggu tsaa gha t'aax dze',

/When he comes out to them [at the first of the run] then there is a great noise of celebration up above [on shore] below the cache and,

yet kugha daniyaa de' udetnii.

/it is then he has come back inside to them it is said.

Koht'aene densuunne really, luk'ae tnaey 'iine.

/They are fine people, really, these salmon people.

"Yedi ts'itghu c'a naghidaat de," dae' kiitnii.

/“So quickly you have returned,” they say.

"Luk'ae xona yehwk'e yaen' ts'e' 'sdetniidze'," dae' ku'etnii, you know.

/“We only speak to the salmon in this manner,” thus he tells them.

Yet su dghesne' gha dana'idya dzaen niidze 'et

/As I said, there he came back inside to his relatives in midday.

Nadaadze' cu 'utsene naadaat, ten k'e daadze' you know, 'eli' c'a 'eli' c'a 'al'aa c'a kiinizene.

/As he is coming back upstream and toward the shore, as the ice (is going) downstream, they do not think that anything is improper.

*People know that they have proper love and respect for the salmon that are coming to them.*

T'ae' really xuciz'aani tezdaek dze' dae' really happy you know

/So then their hearts are stirred, they are really happy you know.

Xugha suhwdi'aa xu tk'edyaaak.

/They became really happy.

"Natsene negha na'idya 'adii dzaen.

/“Down by the water he has returned to us on this day.

Nts'e sa gha, nts'e sa gha tohdeli," cu dae' ku'etnii you know.

/“Don't come close to me,” he says to them.

Different, cu'ts'endze' koht'aene itaen de'."

/“I have become a different person again.

Yet daaghe' su Bac'its'aadi, Bac'its'aadi kelyaesde, co's 'snilyaes,  
/So that is why when the Bac'its'aadi (small king salmon) are taken, we get down feathers.

Łuk'ecodze' nilyaes, dets'eni codze' nilyaes dze',  
/Fish feathers' are gathered, duck down is gathered,

'Unggut tah xw'eł nic'at'ak t'el'iis, you know.  
/And upland (in the woods) they wrap it up in that.

Łuk'ae ggaay, łuk'ece'e ggaay, Bac'its'aadi they call you know,  
/The small salmon, the small king salmon, 'the one that is highly regarded,'

'unggu niltaes dze' de xu ndaane fish tket'iix dze' yet hwts'e' c'a 'unggu kiiltaen.  
/is put upland where they process fish, they lay it up there.

Tuu łdu' tanakiiltaes, łuk'ae ggaay.  
/And then they put it back in the water, that small salmon.

Dae' bane' z'aan, dae' badahwde'estnes, 'adii sii.  
/This is how the law is about it, this is what I have heard about it now.

Bahwnadadezelna' c'a some, now Frank Stickwan c'a more better ya nahwtalnic you know,  
whatever he know.  
/I may have forgotten some, and Frank Stickwan knows better and can tell about it, whatever he knows.

That Fred ne'eł nakalnicde dae' suhwne' de.  
/You can say that Fred has told this to us.

Yihwk'e c'a datdgholnes.  
/This is as much as I remember.

My daddy s'eł nakalniis long time, pretty hard I can remember you know.  
/My father used to tell me things.

Everything s'eł nakalniis yetdu', yii su 'adii asnii.  
/He would tell me about everything, and this is what I am saying now.

*Version 3 by Frank Stickwan*

Recorded by J. Kari on 8/24/00 in Tazlina with Virginia Pete. Translated with Virginia Pete.  
Ahtna Tape 123, Side B, 22.50 to 30.35.

Frank begins using some English

He go around fish camp, he go around get fish all the time that boy. All the way he do that.  
He bring the fish. Ba' he packing all the time. Some more he go, he go pack fish, he go walk.

T'ae'e natesdyaayi, he opened that cache, Gee whiz tsic'uu's ndelyaanen, he don't know.  
/He started back and he opened that cache. Gee, there was someone wearing a hat.

Koht'aene na'ooxe duugh hdelts'iix xu tkot'aen.  
/There were people staying out there.

T'ae' uyii kulaele, t'ae' ukole.  
/There was nothing inside. No one was there.

He never come back, kiic'a' tezyaayi. All ba' 'ele' ehwditniige nothing.  
/They had gone away from there. And they did not leave any dry fish, nothing.  
*The Salmon Boy has disappeared.*

All go, kolde.  
/There was nothing.

'Ele' kugha na'idaale in there. He got family, he got father, u'el ts'iinidaek xunt'ae.  
/He did not come back to them there. He had a father. He had a family.

Ubaan, uta' c'ilaen.  
/He had a mother and father.

Nobody knows. Nt'ii c'a dyaak ghanen that man.  
/Nobody knew what had happened to that man.

T'ae' xii'et ts'etniige, t'ae'.  
/They did not know anything.

Hyilyaa', yits'e' nitke' de yaen' 'utgge yae' kulaen sunt'ae.  
/They were skeptical (uncertain). There were only footprints leading to it (cache) up above.

Saen nakusdlaen uta' ubaan tu' all fish camp ts'e' nakidae' t' ciisi tke'aen.  
/Summer returned and his father and his mother all returned to fish camp, and they were dipnetting.

Gha yet su Bac'its'aadi ggaay duugh ghilcaax kehyyitaen.  
/They caught there a small king salmon ('the one that is highly regarded') that was just so big.  
*\*12 to 14 inches in length.*

Pretty soon that little fish, nts'e c'a tnii xu'a inaghał ik'et niidze'.  
/Soon that little fish was saying something in the presence of others.

"Unggu tah nistghonhtaesde'," nedinii.  
/"Put me up above," he said to someone.

Kuts'e' kahneggiten. That fish, Bac'its'aadi ggaay.  
/He spoke to them, that fish Bac'its'aadi Ggaay.

"Good move. 'Unggu ta nisonhtaes."  
/"That was good to put me upland.

"Nts'e nniyi de?", I don't know too much,  
/Why is he saying that?"

Xelts'e' dae' dze' kiits'e' nadyaayi 'et that little boy he staying there.  
/In the evening they went to him, that little boy staying there.

T'ae' Its'axi yizdlaa nt'ae.  
/He was staying in a basket.

My goodness sakes, gaa kiigha nidaedli.  
/My goodness sakes, they came to him here.

Xay de u'et kustna'en, du' ba' de' u'et kustna'en.  
/He is the one who had disappeared in the winter, the one who disappeared with (while getting) the dry fish.

K'edze' nakiidiltaen dze' 'uyggu.  
/They brought him back inside.

Ighay'niitcuut kulaa c'eyaan de tdu',  
/S/he (someone) put food here, and he was eating with them.

Dinac'iighiltaende dghine', fish get him.  
/They said 'someone has put him back inside', the fish have taken him.  
*\*Here Frank uses the symbolic phrase.*

T'ae' yenidan'a badahwdilnen de, yenidan'a dae' tkoniide.  
/This is how the old story goes, how the story is reported.

That's long many million years ago, yenidan'a what he says.

Ku'et yizdaa saen, some more ku'et yizdaa.  
/He stayed with them for the summer, he stayed with them longer.

'Utsuughe tabaaghe natedaas xunse 'unggu duuk'etle that little boy, sc'aen.  
/He would go back below to the beach and then upland, that tiny little boy, that child.

'Unggat deta' daan gha na'idyaaden. Gee that first cenuu, Ighodzi first one went today,  
/He came back to his father and mother up above. "Gee that first canoe, a skin boat, went past."  
Right now he just past us a little while ago."  
*Frank refers to the juvenile smolt coming downstream in a boat.*

"Cenuu na'ustkae's," dae' nii.  
He said, "A canoe has just past."

"Yeah, nts'e dinii de?"  
/Yea, what are you saying?"

"Unsogho dae' cu su'u cenuu na'ustkae's de cu  
/Out there another boat is passing by.

"Three boat, gaa taak'i, two more going, nadaeggi dats'ii kol," t'iitnii.  
/There are three boats, two more are going, two are still missing," he said.

Little boy about that big he talking.

"When that last boat, 'adii hwk'e naatkos de' yi yii natxasdaat," nii.  
/When that last boat comes, I will go back in it," he said.

"Oh my goodness, yidaaghe' tghit'ii?" nii.  
/My goodness, why will you do that?" someone said.

"No I can't stay around here," dae' nii.  
"I gotta go," nii  
"Gee that's too bad," nii.

"There's another one boat coming down. xuyae' dadaa' naatkosi gha, going down," dae' nii.  
/There's one more boat going downstream," he said,

"Cenuu nasghu yae' na'utkae's daa' ts'ik'ey n'et xuyaen'.  
/There is a boat coming down, this is the last one for you.

Last, one more naatkos yii yii natxasdaat." dae' nii.  
/I will go back in the last boat," he said.

'Aen', uta' 'et nakidaetl' bad feel c'ezdlaet.  
/Yes, his father and family returned, feeling badly.

Ugheldze' nic'a'iltsiin 'unse nic'akultsiin tkut'ae.  
/There was a nice dipnetting platform built, a platform going out from shore.

Ghayet kelaexde.  
/There where the fish were running.

Nsghu ba'ooxo natedaasen na'aen, that little boy.  
/He sees him out there, the one going back, that little boy.

"Hey hey naniidze' kanatkos, xona uyii natxasdaat en'e."  
/Hey, a boat is coming downstream, now I will go back in it."

Nic'a'iltsiini nse' gaa nic'a'iltset dze', nse' tanaghityaat.  
/He ran out onto the platform going out from shore here, and he jumped out into the water.

He's gone that little boy.

Cu 'u'ane ku'et dinilaa xu, ku'et hghiya'.  
/Later on, it was just as he had told them when he spoke with them.

"Yik'ets'en yuughe den gaa c'a natxasdaat, little king salmon ggaay 'et aen xende dae'.  
/"In the future I will return here as that little king salmon."

Ghaye tasu'ultaen den nggu da'a t'aen txos'a'de 'unggu ninasu'ultaes sunt'ae.  
/"When you catch me, you should put me up right where I was staying.

Ghat iisdaadze' txatghost'iiit nuhwgha natxasdaat," nii.  
/"So I will be where I was, stay inside when I return to you," he said.

Next year xu' t'iiinii, saen nakusdlaen soon coxo tanaxghitaen.  
/Next year, just as he had said, summer came and they caught him (in a dipnet).

Cu yii coxe little boy nasdlaen.  
/And again he turned into a little boy.

Bac'its'aadi Ggaay dae' nii, "t'ae' bat'ine'esen," koniidze' su Bac'its'aadi Ggaay.  
/"I really love him, that 'little one that is highly regarded', that is being said about that Bac'its'aadi Ggaay.

T'ae' kiigha t'iiinighiziin'i gha mother 'et dae' setnii, that little boy yetnii.  
/They really loved him and his mother and the family would say that, as the little boy had said to her.

"Cu yii's de'et'aen ye xu'et yighida', xule.  
/"If I were alive, I would be staying with them."

Bii c'a 'adii 'asniidze' xu'a. last boat yii naghityaat.  
/"As I said, I got in the last boat just now."

"Tanaghalyaat de'. Go into the river.  
/"I jumped back in the water."

That's what the story about.

Łdan'a sden c'a nduuxi c'a nahwdezeden?  
/So then how many years passed?

Cic'uuy saen river kutezdlaex dze'.  
/He swims into different rivers each summer.

Yeldu' somebody tahyiltaendze' ke'et ts'etniidze' ke'et teltson. He kill it.  
/When they catch him, if they don't know him, they club him and kill him.

Ke'et ts'etniige 'iine.  
/(That is) the people who do not know him.

*Thus early in the run, when the small king salmon is caught in the dipnet, the fish was supposed to be set aside to die. Those who do not know this might club the Salmon Boy, which would be bad etiquette.*

Nitden no more, nothing, yihwts'en 'ele' dina'idlaxe.

/Then there would be no more, after that, they (the salmon) would not run any longer.

That's the last story.

Saen kudusaat, xay kududiyé.

/May the summer be long, may the winter be short.

That's why that little king today yeldu' xu' king nlaen dze' tyaat xu xu' Bac'its'aadi Ggaay di',  
right now they still running too

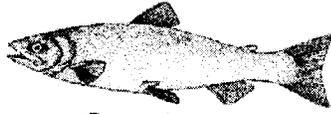
/That is why we have the little king salmon today, because of 'the one that is highly regarded.'

### *Summary*

The narratives presented in this chapter are important in understanding how Ahtna view their relation to the natural environment and the various non-human species that inhabit that environment. In Ahtna cosmology Raven is considered the creator or world maker and in the first story his powers are on full view. Raven not only introduces salmon into the Copper River, by tricking the salmon boss into letting the fish go, but also teaches them how to swim, and helps humans to catch them by making the river water cloudy. Raven also conserves the salmon by letting only a few go so some will be left for next year. In Frank Stickwan's version of the narrative he explains that Raven made salmon flesh the same color as the leaves in fall because, like the leaves, the salmon die in autumn.

As stated in earlier chapters, animals are considered sentient beings who are very aware of humans. This awareness stems from the fact that in ancient times animals and people were able to communicate through language. It was only later that humans and animals became separated, though even now animals come into the human world by being caught and used for food. As humans and animals are considered equal beings, the connection is even deeper because human existence is based on the availability of animals. For this reason, animals are to be treated with respect and caution. The story of *Bac'its'aadi* tells how Ahtna learned to properly treat salmon so that would return every year. But the story also reflects the deeper, intimate, personal relationship Ahtna have with the salmon. As a gesture of respect, the salmon people return the boy to his parents with a message that if you treat us in a similar fashion we will come back every year to feed you.

## Chapter Nine SUMMARY and CONCLUSIONS



### *Introduction*

Within the last ten years traditional ecological knowledge has become an important topic of research among anthropologists and environmental scientists. Interest has grown out of the recognition that Native people, who have spent a lifetime on the land, can increase our overall understanding of the environment and that traditional knowledge, combined with western science, may lead to improvements in resource management. Despite this recognition, resources managers and scientists are not quite sure what traditional knowledge is, much less knowing how it might contribute to scientific research or resource management (Nadasdy 1999:1).

Traditional knowledge can be divided into three analytical components: knowledge, practice and belief (Berkes 1998:13-14). The knowledge base consists of information gathered through a lifetime of observation and constant interaction with the environment. It is comparable to observations collected by scientists and includes the identification of species, taxonomy, species distribution, and life history. Practice is how local people put their knowledge to use: how they organize and manage their activities on the land; develop appropriate harvest technologies, and methods for processing and storing food. Successful harvesting practices require an understanding of ecological processes and often include a code of ethics governing human-environmental relationships. Ethics are informed by belief, which shapes people's perception of their environment and gives meaning to their observations and actions. While each component can be analyzed separately, in practice they are not discrete, there are feedbacks between levels and the linkages are dynamic. Knowledge changes, as do management systems and worldviews.

### *Ahtna Traditional Knowledge of Salmon*

Ahtna knowledge of salmon conforms to the above description of traditional ecological knowledge. Through constant interaction with the environment Ahtna have acquired intimate and detailed knowledge of salmon. They have developed an accurate and complete taxonomy of all fish species found in the Copper River Basin and gained knowledge of salmon distribution,

salmon life histories, and behavior. The Ahtna lexical inventory for fish is a good example of local people's ability to accurately describe local fauna. In the Ahtna language there are terms for 19 species of fish, including all 14 species found in the Copper River Basin, and inventoried by the Alaska Department of Fish and Game (ADF&G). The additional five species exist outside the basin and are known to Ahtna through trade. The Ahtna taxonomy for fish is divided into two empirical categories, *tsabay*, which are fish other than salmon, and the more general term used for the class *Pisces*, and *luk'ae*, a term referring both to salmon in general and sockeye in particular.

For the term *luk'ae* there is considerable lexical elaboration revealing extensive and specific knowledge of salmon ecology. For example, the Ahtna language includes terms covering almost every phase in the life cycle of salmon. Salmon alevin, are *luk'ae yiige* (salmon's spirit); salmon fingerling are referred to as *luk'ae ggaay* (little salmon); little salmon fry headed down stream are called *'ul'uli* (those that are swimming past); spawning fish are *tazdlaexi* (those that are swimming in water), and dead salmon are called *tultaeni* (the one that is dead in water). Female salmon are referred to as *K'unn'i* (the roe one), and male fish are *tl'ets'i* (the milt one). Seasonal variations of fish are also noted. Full sized, prime early running sockeye are called *nulaeggi* (island swimmer), late running sockeye are named *dak'aay* (that which is ridged, humped) and late running sockeye in Tonsina Lake, located in the lower Copper River drainage, are called *tsiis luugge'* (ocher salmon). The comprehensiveness of these terms (listed in Table 2-2 in Chapter Two) indicate that Ahtna have long been aware of the various phases in the life cycle of the salmon. Ahtna elder Frank Stickwan's description of the life cycle appears in Chapter Three of this report.

Ahtna have recognized and named 21 distinct salmon populations that emanate from particular home streams north of the Sanford River. The best known of these, recognized by biologists and Ahtna alike, are *natael luugu'* 'roasted salmon fish,' the large sockeye bound for Tanada Lake. These populations are similar to the stocks identified by biologists of the Alaska Department of Fish and Game, but whereas biologists differentiate between stocks that spawn at different locations within the same system, Ahtna do not. Biologists, for example, consider sockeye bound for Tanada Lake as two separate stocks, one that spawns at the outlet of the lake and one

that spawns in the lake, but Ahtna classify all sockeye from Tanada Lake as *natael luugu*'. Over time Ahtna have developed a number of practices or management strategies to control when and where the harvest of salmon took place, the amount harvested, and the size and condition of the fish caught. The strategies include 1) a system of territories or districts in which access to resources was regulated by a leader; 2) a conservation imperative meant to ensure a "sustained yield," and 3) timing the harvest effort to ensure the maximum harvest effort and the production of *ba*' or dried salmon. "Self management" systems, such as described here, are community based. Management is in the hands of the resource users who adhere to the rules in response to social pressure, cultural mores, and/or ideological conviction rather than government or administrative authority (Feit 1988:74). In a culture where individual autonomy is highly valued, as it is in Ahtna culture, there are no mechanisms to force compliance of the rules. In some instances, such as flagrant violation of a territorial boundary, conflict may develop, but on the whole it is up to the individual to conduct himself or herself properly when fishing.

One method Ahtna use for regulating the harvest of salmon is to limit access to harvest areas. By monitoring access to the most productive fishing sites the Ahtna regulate competition and manage the local harvest for their specific benefit. But social conventions carry obligations to share food so a diverse group of people might have access rights in more than one territory. Outsiders are never categorically excluded, but depending on their relationship to the group, have either the right to fish for themselves or to share in the catch. The *denae* or leader is integral to this system. As a leader the *denae* has the authority to regulate access to different resources within his territory. Furthermore, his personal status rests on his ability to produce and distribute food so he is usually active in directing the construction and maintenance of fishing equipment, instructing his clansmen when to begin and stop fishing, and keeping track of the harvest.

In recent years the Ahtna system of land tenure has shifted from clan to corporate or individual ownership of land. Today village corporations, along with Ahtna Incorporated, the regional corporation, own a majority of the land along the Copper River and access to the river is severely limited. Many Ahtna have fishwheel sites that are located on corporation land. Regardless of who owns the land individual families manage these sites. And although the State of Alaska

regulates the fishery, local fish wheel owners regulate access to their fish wheels, decide when to fish, and determine harvest quantities based on family need, social obligations, and environmental conditions. And where it was once the *denae*'s responsibility to see that every one had enough fish, that responsibility now belongs to the tribal government. In recent years tribal governments have successfully petitioned the Alaska Board of Fisheries to pass regulations that allow local governments or organizations to manage a village fishwheel. In most Ahtna villages the tribal council now manages a fishwheel and distributes the catch to elders and other people in need.

One of the most salient features of the Ahtna management system is the conservation imperative meant to insure a "sustained yield." In Ahtna culture, salmon, as well as other animals, are believed to be powerful, sentient beings who give themselves freely to humans, but only if they are treated properly. If treated poorly the salmon will make themselves aloof. To ensure that the salmon return every year Ahtna are obligated to follow a set of rules that regulate almost every detail of fishing. Such rules range from honoring the first salmon caught, to keeping the fish camp clean, and acting properly around the fishing gear. But the precept most often discussed by the elders interviewed in this project, was the imperative not to waste.

To avoid waste Ahtna carefully gauge their harvest against the capacity to process the fish. Once this capacity is reached the harvest is suspended, so that fish are not unnecessarily caught and spawning fish can escape. Ahtna are also concerned with catching the right kinds of salmon. To make *ba'* Ahtna select fish based on their sex and reproductive condition, preferring male salmon to females because the former are larger and fatter. As one Ahtna elder remarked,

That what he used to do, he [we] keep more males...just throw em back in river. Sometime he [we] take em all, sometime he let the female go. That's why he used to have a lot of fish long time ago. *Kata'ile'i*, (spawning salmon) they let them go.

In the past when female salmon were caught in a dip net or trap they were released, but modern fishing technology has altered this practice. Fishwheels run during the night when no one is around, so people are obliged to keep all of the fish they catch. As Ahtna elders note, old fishing practices were in place to "save everything," that is to ensure a sustained yield.

Ahtna use their knowledge of the weather and salmon migration patterns to time their harvest effort so as to maximize their fishing effort and the production of *ba'* or dried fish. Fishing effort is concentrated in June and July. The weather is warm and dry, enhancing the production of *ba'*, and there are less flies to spoil the salmon and fewer wasps, which literally eat the drying salmon. Furthermore, certain stocks of sockeye, such as the *natael luugu'* or 'roasted salmon fish,' headed for Tanada Lake, migrate up the Copper River early in the season. These fish, also known as "wide meat fish," are preferred because of their size and are known throughout the entire drainage.

To keep track of their harvest the Ahtna developed a system of accounting based on the bale. Although the size of a bale varied, most Ahtna elders agree that a single bale of sockeye contained between 40 and 42 dried fish. Harvest amounts were regulated by need as well as environmental factors, such as water level, and the strength of the run. We estimated the historic Ahtna harvest at 1,308,450 pounds, or 436,150 salmon (dividing by a factor of 3, the average live weight of a sockeye salmon), considerably higher than the subsistence harvest of Ahtna villages today. This decline in the modern subsistence harvest is the result of a complex process that is political, regulatory, economic, and social in nature, and is beyond the scope of this report. It should be pointed out, however, that salmon are still an important part of contemporary Ahtna culture. When we discussed this aspect of the report with Ahtna people they were adamant that this be understood.

Ancillary to their management strategies the Ahtna created highly efficient and effective harvesting, processing, and storage technologies. These were equal components of an integrated system developed to provide enough fish to help sustain people through eight or ten months of the year. The most widely used piece of harvesting equipment was the *ciisi* or dip net, often manned from a platform in the river. Most salmon harvests took place using this gear in the main stem of the Copper River. Fishing with a dip net allowed the Ahtna to select bright male salmon, which were the preferred fish for making *ba'* or dried salmon. On most major tributaries of the Copper River Ahtna used fish weirs or *hwtsiil*, and conical traps or *tiz'aani*. These were especially effective in narrow, slow moving streams such as Tanada Creek, and at

lake outlets, and like the dip net, the traps allowed the Ahtna to select fish on the basis of sex and reproductive condition. In deep pools where salmon schooled up the Ahtna used fish spears or the *dunax*. In the early 20<sup>th</sup> century the Ahtna adopted the fish wheel, which supplanted all previous forms of fishing technology. By state law the fish wheel and subsistence fishing were limited to the main stem of the Copper River.

Effective harvesting technology was essential, but of equal importance was the proper processing and storing salmon. Optimal conditions for harvesting and drying salmon occurred in June and July. In hot dry weather salmon dried quickly and there were fewer flies to lay eggs in the drying salmon and fewer wasps to eat it. *Ba'* was stored in underground caches constructed so that the fish remained dry but air circulated reducing spoilage and hindering the growth of botulism. In addition to *ba'* Ahtna cured salmon backbones, made fermented fish, boiled salmon heads to make grease, and ate fresh salmon, preparing it in different ways depending on the condition of the fish.

Ahtna salmon fishing is rooted in a belief system or worldview that can be considered ecological in nature. In Ahtna culture the individual is considered part of a complex web of relationships that includes both human society and the natural environment. Behavior in all relationships, whether with humans or animals, is guided by a set of principles that stress cooperation, restraint, and balance. Ahtna elders understand that human existence depends on treating animals and plants with respect and caution. If animals are treated properly they will allow themselves to be caught and will replenish themselves. This point of view is summarized in Martha's Jackson's statement: "they work on them well, and that is the only reason that the salmon exist." In other words, salmon exist today is because the ancestors harvested and treated them with well.

The intimate relationship between Ahtna and salmon is clarified in the Salmon Boy Story: *Dinac'iighi<sup>3</sup>taenen* or *Bac'its'aadi* ('the one who is highly regarded'). Salmon and humans live in parallel worlds, both have a society and culture. Salmon are also sentient beings and aware of what is happening in the human world. The *Bac'its'aadi* story explains the relationship between humans and salmon and provides explicit instructions on how salmon want to be treated. The

story begins when a young boy is found missing from fish camp and is believed to have drowned. Miraculously he is returned to his parents, but in the form of a small king salmon that they catch in their dip net. The boy is then transformed into a human and he explains to his parents that he has been living with the salmon people and that he will return to them every year as a small king salmon. If they catch him, however, they are not to club him to death but bring him to the fish camp, cover him with down, and return him to the river. Throughout the story the mystical phrase *Dinac'iighi'taenen* is repeated. Literally translated the phrase is "someone put him back," meaning the boy was put into his parents' dip net by the salmon people. By returning the boy to his parents the salmon people demonstrate their generosity to humans, which they expect to be returned in the form of good treatment. Fred Ewan sums up the story this way,

Bac'its'aadi, little king salmon, when they get that, that's really good Indian way. You get it, you gotta save it. You take it outa the wheel, you gotta dry it, you not gonna eat it though. They don't bother that thing. If you bother or talk about that, foolish way, you go and drown that's all. The fish take you back they say, you know [when someone drowns].

It is obvious that the Ahtna management system is rooted in an understanding of the human-nature relationship far different from those of most resource managers. At the same time Ahtna management strategies have outcomes that are analogous to those desired by resource managers. Ahtna manage the fishery for a sustained yield, in other words they want the fish to return every year and in sufficient numbers. They are not interested in harvesting every fish, which would result in waste and the diminishment of the fish population. On the other hand Ahtna believe that they are obligated to harvest fish. That is, if fish give themselves the fisher must accept them. Accepting the fish ensures that the fish will return or replenish themselves, thus maintaining a stable fish population. At the same time Ahtna are also concerned with escapement, that is, getting spawning fish to the spawning grounds. And finally, Ahtna elders are very concerned about salmon and the broader ecological processes that affect salmon, such as the degradation of salmon habitat from pollution.

### *Traditional knowledge and scientifically based resource management*

Can traditional knowledge be applied to scientific resource management? We have already seen that Ahtna management strategies have outcomes that are analogous to those desired by resource managers but that the underlying beliefs connected with those outcomes are very different. One

explanation for why it is so hard to make use of traditional knowledge in resource management is because TEK is too different from science in terms of content and expression. In writing this report one of our major concerns was how to present this information so that it would be useful to resource managers and the Ahtna.

A major difficulty in bridging the gap between TEK and science is appreciating different styles of communication. In Ahtna culture narrative plays a key role in the transmission of knowledge. Narratives often range over a wide set of topics and do not provide a series of discrete data. In writing the report we took the liberty of dissecting the narratives and organizing them into discrete chapters on specific topics. But we also wanted to maintain the integrity of each narrative as much as possible so that the reader could get a sense of the logic of communication. That is why, throughout the entire report, we have made extensive use of interview excerpts and interlinear translations in order to support statements, illustrate key points, and let the elders have a significant voice. Additionally, we wanted to collect narratives in the Ahtna language that would reflect both a cultural perspective on the environment as well as technical knowledge about salmon and salmon fishing. There are two reasons for providing a cultural perspective. First, it provides an alternative view of ecosystem and human environmental interrelations that may provide resource managers and research biologists with new insights into environmental conditions, problems, and concerns. Second, it provides a way for understanding what people value in their environment, which leads to better management overall.

One key to successful management is to have the users understand and accept the goals and objectives of the resource managers. For this to happen the users have to have a stake in management. One hundred years ago the Copper River salmon fishery was a communal fishery that the Ahtna managed for their own benefit, but over time the Ahtna have become one of several user groups vying for an allocation. Despite the usurpation of the fishery, Ahtna have participated in the management system by going to meetings and submitting proposals. But underlying these efforts is a feeling that biologists and resource managers are not really interested in what the Ahtna have to say, despite their long history in managing the fishery. To overcome the silence we recommend the creation of venues in which local people and managers can share information. Such venues should be considered as equal exchanges of information, so

that both managers and local people feel comfortable sharing information (cf. Pinkerton 1990:335). Effective communication requires acknowledging that local people do have valuable information or insights, and that managers do have legitimate concerns. The objective is to build relationships with local people so that managers and locals can develop common goals.

There are two areas where traditional knowledge may fit into fisheries management. Modern management can be divided into two complementary parts: in-season management and basic research. Each part contributes to the goal of management, which is to sustain salmon production for human uses and maintain a functioning ecosystem. Traditional knowledge can contribute to in-season management. One example is the Kuskokwim River in-season management team that includes federal, state, and tribal representatives. Through such venues local people can make contributions to the management of the fishery by supplying traditional knowledge and actively participating in the monitoring of the harvest and escapement.

Traditional knowledge also fits into basic scientific research undertaken by biologists and resource managers on the effect ecosystem dynamics have on fish populations. Ahtna have knowledge and understanding of long-term ecosystem dynamics.

One method for understanding the changes that have occurred in ecosystems over time is to create an environmental history of a particular region or ecosystem. To reconstruct the history of an ecosystem requires a variety of different types of information and these data then need to be triangulated or compared with each other so that one illuminates the other. Traditional knowledge is a key element because it provides a time depth that is unsurpassed in its continuity and can help explain ambiguities found in other kinds of evidence that can be incorporated into the model.

In addition to creating venues for collaborative research we recommend two particular avenues for further research. In this report we discussed traditional Ahtna management strategies and noted that these strategies have changed. It should be understood however that Ahtna management has not disappeared and continues to exist along side government regulations. Research needs to be conducted in how this system works, how much continuity is there between the more traditional system and modern practices, and what are the goals and objectives of Ahtna

fishers. And, as traditional management strategies have changed so has the Ahtna harvest of salmon. This topic is of particular interest to Ahtna. They point out that the reasons for the decline in their harvests are complex and involve various factors such as regulatory changes, commercial fishing, environmental change, economic development, changes in land status, and demography.

In conclusion, traditional knowledge can contribute to modern fisheries management but this depends on three things. First, it requires a commitment between local people and managers to share information. Second, there needs to be an appropriate venue for sharing information. Third, traditional knowledge has to be synthesized and converted into data that is usable to both managers and to Native people and Native people need to be trained in the techniques of this process. At the same time managers need to be educated and sensitized to the culture of the people they work with.

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## ENDNOTES



### *Introduction*

- 1 We use the term traditional ecological knowledge because it has passed into wider usage and because it denotes a particular kind of knowledge. But there is a caveat to the use of the word ‘traditional’ because it has connotations that such knowledge is static or timeless. Knowledge, like culture, changes.

### *Chapter Two*

- 1 By way of comparison, other natural history domains, such as birds or insects, are not as familiar to the average speaker and have more divergent terms in the dialects.

### *Chapter Four*

- 1 Among biologists and resource managers, the term “sustained yield” means the “average annual yield that results from a level of escapement that can be sustained on a continuing basis.” We use the term to refer to salmon returning in quantities large enough to achieve a sufficient and sustained harvest year after year.
- 2 This was probably a misinterpretation on Abercrombie’s part since the relationship between in-laws required that food be shared and no such incident has been documented elsewhere.
- 3 Intention is a key word here. Animals are thought to know humans – in other words they are able to divine a human’s intention toward them. If the hunter’s intention is correct and he kills the animal out of need, but for some unforeseen circumstance cannot make use of what he kills, that is acceptable behavior. On the other hand, if the hunter’s intention is incorrect, if he, in other words, kills the animal out malice or anger, or for fun, and has no intention of using the meat the animal spirit will know and take revenge upon the hunter.
- 4 Virginia Pete (Ahtna Tape 123) talks about the first salmon ceremony as a way to stave off illness.  
Virginia: “We take a bath when they get first fish. They put blood in that water and we take a bath, me and my sister, right? My mom used to do that. We take a bath before we eat fish.  
*Tsoxe c’elaxde* (first-) - When fish coming, sick sometime come out, that’s why. You take a bath, them days nobody die, nothing. Nobody die, old people we had all the time. Children born, they never die.  
Virginia: I remember that we used to put on new clothes. When they start to eat first fish they put leaves all around it, and he eat it. Without that they gonna get bad luck he said.”  
As pointed out by Polly Wheeler, ensuring good luck and staving off illness may be different sides of the same coin.

- 5 According to Wilson Justin (2001), Katie used the bloody nose as a metaphor for poor behavior. Villages were “sanctified” places, which meant that spilling blood was strictly prohibited. People had to be extremely careful of their behavior so as not to pollute the site and cause the inhabitants misfortune.
- 6 The prohibition against using metal also applied to the construction of the dip net platform. J. J. Rafferty, (1900:619) a guide working for the U.S. Army in 1899 noted that “The rivers are sacred things to the natives, so much so that they will not, and do not even like to see white men throw a stone into the stream, for fear of making the water god angry. An ax or a hammer is never used to drive a stake in the river when platforms are being built for fishing stations. A stone from the bank is considered to be the proper thing for this purpose.” Ahtna elders still maintain that salmon do not like fish wheels constructed with too much metal.
- 7 In a paper on the migratory timing of upper Copper river sockeye salmon Merritt and Roberson (1986:220) write that the “mean arrival date of early stocks (those headed for the upper Copper River) tended to be more consistent from year to year than the mean date of later stocks.”
- 8 Shirley A. Baker was assistant agent in the Bureau of Fisheries and, in 1921, assigned to investigate the salmon escapement on the upper Copper River.
- 9 A bale is the standard measurement containing either 40 or 42 sockeye salmon or 20 chinook salmon (see below).
- 10 Frederica de Laguna (1970:7) identifies two of Doc Billum’s fishing sites as *Sdates* and *Tats’esghi’aaden*. The latter is located on the east bank of the Copper River on the first small stream above Horse Creek.
- 11 Preference for male over female salmon was the norm all up and down the Copper River. Frank Billum (Ahtna Tape 112) of Chitina said people liked the bigger males over the smaller females.
- 12 Beth O’Leary (1992:47) notes that when she was at the Tutchone village of Klukshu in southern Yukon “families who owned [fish] traps talked constantly about how many fish were being caught.” She also noted that as soon as an outsider asked about the quantity harvested, people felt like that was an invasion of privacy.
- 13 O’Leary (1992:90) estimated that for the Tutchone, dried salmon had to last five months or 150 days. It is clear from the oral and written record that Ahtna relied on caches of salmon for a much longer period.
- 14 Osgood (1971:115) used this same number when estimating the number of salmon needed by the Han, a group of Athabaskan people living on the Upper Yukon River. Osgood assumed that humans require 2,000 calories per day. He also assumed that the average salmon contained 15,000 calories or 1,000 calories per pound, true only for chinook salmon, which are the largest. He therefore reached the conclusion that 50 salmon would be sufficient to feed one person over the entire year.
- 15 Frederica de Laguna (1972:400) wrote that a large Tlingit household made up of 20 people smoked/dried 2,000 to 3,000 salmon. If the average salmon weighed four pounds that was 8,000 to 12,000 pounds of fish which had to last from 60 to 240 days or from two to eight months.
- 16 As of December 1999 there are three categories of fishers harvesting Copper River Salmon. At the mouth of the river there is a commercial fishery, on the middle river there is a subsistence fishery, and on the Gulkana River there is a sport fishery.

- 17 In the 1920s other resources were available as well. Ahtna could purchase food from the traders – flour, tea, sugar, and canned goods. This helped to stave off hunger in lean times but “groceries” as they were called, did not replace wild foods, which people relied upon and generally preferred.
- 18 According to Wilson Justin (2001), salmon bartered into the Upper Tanana were carried over trails that led through Mentasta Pass and over Suslota Pass. Fish were an important item of barter, important both economically and as a medium for maintaining important social relations between in-laws who were members of the opposite moiety. Wilson estimated that one third of the salmon harvested on the Upper Copper River was bartered to the Upper Tanana people.
- 19 Lieutenant Allen (1887:67) wrote that 56 people were waiting the arrival of the salmon in the summer of 1885. The 1910 U.S. census lists five people at Batzulnetas while the 1920 census lists 27 and Strong (1976:232) writes that in 1925 there were two families with 20 individuals. In 1936 the anthropologist Froelich Rainey counted 15 residents (BIA 1993:13). It is unlikely that any of these counts included all of the people who lived or fished at this particular site.

#### ***Chapter Five***

- 1 According to Wilson Justin (2001), Tanada creek was never entirely blocked off, a portion always had to remain open.
- 2 Molly Galbreath painted a picture of Batzulnetas and she forgot to put the table used for cutting fish into the painting.

#### ***Chapter Seven***

- 1 Katie John (Kari 1987:69-73) tells a story called *When the Aleuts Burned Caches*.

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## Appendix A PROCESSING SALMON AT GULKANA



Photos by Bill Simeone

In this sequence of photographs Andy Tyone demonstrates how to process a king salmon to make half dried fish that is then boiled. Most of the steps in the processing are similar to those described for making **ba'**, but instead of cutting thin fillets he cuts them thick and instead of leaving the backbone attached it is removed.



Plate A-1. Removing the salmon from the pit. Placing the fish in the pit over night helps to remove the slime, making the fish easier to handle and taste better.



Plate A-2. Removed from the pit, the fish is put on a stringer made of willow and soaked in the river to remove the dirt. Andy then cuts off the salmon's head leaving it on the stringer to soak.



Plate A-3. After the fins are carefully removed the first cut is made along the backbone opening up the fish as shown below.



Plate A-4. The ribs and internal organs are exposed. Instead of using his fish knife Andy is using an ordinary kitchen knife. Note the salmon eggs.



Plate A-5. After the internal organs are removed a second cut is made along the backbone on the opposite side of the fish.



Plate A-6. The second cut is continued so that the entire fish is opened up. Note the backbone of a previously butchered fish and the sharpening stone lying on the corner of the table.



Plates A-7 and A-8. The backbone has been removed and the fillets are separated. The flesh is then scored to facilitate the drying process. Note the fish wheel in the background.

