

## VII A SEASONAL MODEL OF TAHLTAN SUBSISTENCE AND SETTLEMENT PATTERNS

### Introduction

Subsistence behavior of hunter-gatherer groups is here viewed as the result of a set of decisions which resolve specific interrelated problems and is best understood by means of a systems approach. The basic considerations in systems analysis are almost identical to those of decision making (Churchman 1968 in Jochim 1976:8). These include:

- 1) the total system objectives: the fulfillment of subsistence needs,
- 2) the environmental constraints under which the system is operating,

- 3) the resources available and their characteristics,
- 4) the components of the system: technology and activities,
- 5) the management of the system: means of ensuring economic stability.

In reconstructing traditional Tahltan subsistence and settlement patterns each of these basic considerations is discussed in detail.

### Subsistence Requirements

The objective of the subsistence economy as a system is defined as the fulfillment of basic subsistence requirements of food, shelter, and clothing. It is generally agreed that the primary objective of subsistence activities of all hunter-gatherer groups is fulfillment of energy needs of the group, measured in Calories. The caloric requirements of a group of people will vary with the climate of the environment occupied. Hassan (1981:18) estimates an average consumption of 2200 Calories per person per day for hunter-gatherer groups in temperate areas, while groups in cold climates would require 3000 Calories per person per day. In calculating average caloric requirements of the Tahltan, a figure of 2600 Calories per person per day will be used. This figure represents an average between caloric needs during warm summer months and those for maintaining activity levels during cold winter months in a highly seasonal environment.

Besides supplying energy requirements, the diet must also provide adequate levels

of other nutritional elements such as proteins, vitamins, and minerals to maintain population health. Table 9 presents average daily requirements of various nutrients for a population group composed of a cross section of individuals of different ages. Secondary goals related to diet involve the desire for variety and good tasting foods. From the Tahltan emic position, taste in fish and animal foods is generally related to fat content.

Living in a cold winter environment, the Tahltan people require hides and furs for warm clothing, robes, and bedding. While these may be provided by a variety of animal species inhabiting the Stikine Plateau, they are most efficiently procured from animals also used as food.

Raw materials are also required for the construction and manufacture of structures, facilities, tools, and implements. While structures and most facilities are generally made with wood and bark, many tools and implements, and facilities such as snares, are made from raw materials obtained from food

animals, including hides, bone, antler, horn, and teeth.

In fulfilling basic needs of food and raw materials, there is generally a desire to limit the effort expended or minimize the cost of resource exploitation. In cold climates, this factor includes the need to limit the amount of time spent exposed to inclement weather conditions. A group must also strive to maintain a level of security to minimize risks of suffering from seasonal and periodic longer term fluctuations in resource abundance and environmental stress.

Table 9. Average Daily Requirements of Proteins, Vitamins, Minerals.\*

Proteins	50 gm (1 gm/kg body weight)
Calcium	1 gm
Phosphorus	1 gm
Iron	15 mg
Vitamin A	5000 International Units
Thiamine	1.1 mg
Riboflavin	1.5 mg
Niacin	15 mg
Vitamin C	50 mg
Vitamin D	400 International Units

Source: Recommended Dietary Allowances, Food and Nutrition Board, National Research Council, 1968

### Resource Attributes

While the environment supports a wide variety of exploitable resources, different kinds of resources have different potentials for fulfilling subsistence needs. Different animal species vary greatly in overall size, weight, fat content, and caloric yield, as well as kind and quantity of raw materials which they provide. These factors combined with abundance and efficiency of exploitation determine which resources are commonly used. Teit presents the food preferences of the Tahltan as follows.

The flesh of the following animals was considered good food; the caribou, moose, buffalo, sheep, goat, bear (of all kinds), lynx, beaver, marmot, porcupine, ground squirrels, and hare or rabbit. Tree squirrels and muskrats were eaten occasionally especially if food was scarce but they were not considered very good food. Squirrels did not have enough fat. The flesh of the otter, marten, mink, fisher, wolverine, wolf, dog, bush rat and mouse was not eaten. Only in cases of direct necessity did people eat flesh of these animals, and the last resource was the dog. Of birds, grouse of all kinds, ducks

of all kinds, geese, swans, and few other large birds were eaten. Fresh water fish of all kinds such as salmon, trout, grayling, white fish, pike etc., were eaten. No reptiles (sic, should be amphibians) and insects of any kind were eaten. Any person who ate anything unusual or different from the food eaten by all was laughed at and spoken about.

(Teit 1956: 81-82)

A variety of plant foods was also eaten by the Tahltan although perhaps not to the same extent as groups living further to the south.

Table 10 presents the average Caloric yield of most of the resources commonly exploited by the Tahltan people. Average live weights and percentage of edible meat for most species have been drawn from data presented by White (1953:397-8). Some of the species which occur in the Stikine Plateau differ in size from those in other areas, so weights of these have been adjusted accordingly. Caloric values for different kinds of resources have been estimated from tables provided by Department of National Health and Welfare (1951). Fat content of various species is

Table 10. Calculation of Average Caloric Values for Individual Resources.

Resource	Average Live Weight (kg)	Edible %	Portion Weight	Cal/kg	Calories/ Individual
moose	400	50	200	2700	540,000
caribou	180	50	90	2700	243,000
mule deer	90	50	45	2700	121,500
sheep	90	50	45	2700	121,500
goat	90	50	45	2700	121,500
black bear	135	70	94.5	3500	330,750
grizzly	200	70	140	3500	490,000
beaver	20	70	14	3000	42,000
porcupine	6.7	70	4.7	2500	11,750
marmot	6.7	70	4.7	2500	11,750
gopher	.9	70	.6	2500	1,500
hare	1.35	50	.67	1500	1,012
lynx	13.5	50	6.75	1500	10,125
sockeye	3.2	80	2.5	2000	5,000
chinook	9.	80	7.2	2000	14,400
coho	4.	80	3.2	2000	6,400
steelhead	3.6	80	2.9	2000	5,800
trout/ freshwater fish	1.35	60	.8	1500	1,200
goose	3.6	70	2.5	3000	7,500
ducks	1.1	70	.77	2300	1,770
grouse	.9	70	.63	2000	1,260
ptarmigan	.67	70	.47	2000	940
green vegetables			1.	350	
roots			1.	700	
berries			1.	600	

reflected in caloric value per kilogram.

Fat content is one of the most important and desirable attributes of any food resource. The amount or thickness of the layer of fat on the back, in the abdominal cavity, or around the kidneys, is one of the first things a hunter mentions when describing a recent kill. Fat content and hence overall weight of an animal varies seasonally. Generally, mammals attain their highest weight and fat content in fall, especially hibernating animals such as bears and marmots, which put on layers of fat to last through the winter. In ungulates,

females attain their highest weight and fat content in spring before giving birth, while males have the highest fat content just before rutting. Fish species have the highest overall weight and fat content prior to spawning.

Mammal species are most desirable and most intensely exploited at times when they have the highest fat content and are in prime condition. In fall, large quantities of fat from the larger game animals are rendered and stored for winter use. Experience in a highly seasonal environment indicates that the individual naturally

craves fat in the diet during cold winter months. Fats of these wild game animals provide high energy yields, are easily digestible, and very tasty. Dried fish and meats are rendered much more palatable by dipping them in prepared fat.

Most of the animal species exploited for food are herbivorous in their dietary habits, or omnivorous in the case of bears. Except for the lynx, fur bearing carnivores are not exploited as food resources. When skinned out these animals consist mainly of bone and sinew with very little flesh or fat on them. Carnivores, being higher on the food chain, are less abundant, and more dispersed within a forest environment. Being very intelligent and wary of human odours, carnivores are difficult to capture. Neither were the various small bodied mammals such as shrews, bats, or rodents, small birds, or amphibians, used as food resources. These animals are also widely dispersed throughout the environment and difficult to procure in abundance. The high cost of procurement of these animals in relation to their low energy yield would restrict their use as a food resource when larger bodied animals are abundant and easier to procure.

Different resources vary not only in their caloric yield but also in content of other nutrients. In a diet composed predominantly of animal flesh, there is no lack of proteins since fish and meat provide a range of 150 to 250 grams of protein per kilogram of edible flesh. The five essential amino acids are found in comparable amounts in the proteins of both fish and animal species (Rostlund 1952:3).

Both fish and animal flesh contain comparable amounts of B vitamins, thiamine, riboflavin, and niacin. Fish, and particularly salmon, are good sources of vitamins A and D (Rivera 1949:34, Rostlund 1952:4). Vitamins and minerals are highly concentrated in fish liver and roe as well as organ meats of animal species. These are preferred parts and enjoyed as delicacies by the Tahltan. Chemical analyses of dried

salmon indicate that there is little or no decrease in nutritive value when flesh is processed by aboriginal methods of drying (Rivera 1979:35).

Plant foods, including roots, berries, and green vegetables, traditionally used by the Tahltan, although low in caloric yield, provide high levels of minerals and vitamins, particularly vitamin C, which is generally lacking in animal flesh. The drying of large quantities of berries during the summer while they are available extends the supply of important vitamins over winter months when vegetable foods are unavailable. Another important source of vitamins used during winter months was caribou stomach contents, consisting of fermented mosses and lichens.

Different animal species vary in the kind and quantity of useful raw materials which they provide. The large ungulates, moose and caribou, are not only the preferred food resource but also provide the most valuable materials for the manufacture of clothing, facilities, tools, and implements. Table 6, in Chapter VI, indicates the relative value of each animal resource in terms of non-food yields. The value scores represent an approximate percentage of the total body weight which might be used as raw materials. In the case of moose and caribou, Tahltan elders indicated that nothing was ever wasted.

The relative importance of different animals for providing food and raw materials is reflected in the number of names by which a single animal species is called. The Tahltan identify animals as forming families composed of individuals of different sizes and ages. Often animals are referred to with kinship terms such as grandfather, or older brother, strengthening the identification of people with animals and the importance of treating them with respect. Morice (1903) recorded eight different names for marmot, while I have recorded seven names for caribou, and five for sheep. Moose, goat, and bear are also referred to by several names.

### Seasonality and Resource Availability

In fulfilling needs, the subsistence economy must operate within the constraints of the environment which the group occupies. The environment defines what kinds of floral and faunal resources are available for exploitation. As presented in Chapter V, the Stikine Plateau supports a diversity and relative abundance of flora and fauna. Potential resources are not evenly distributed in space or time, however. The environment of the area is characterized by elevational differences in biogeoclimatic zones. Most animal species are adapted to different ecological niches within these zones. The environment is also characterized by marked seasonality. Seasonal changes in temperature, precipitation, amount of sunlight, and period of plant productivity also affect changes in weight, fat content, times of breeding and birthing, and degree of aggregation and dispersal of fish and mammal populations.

Seasonality is probably the most important single factor contributing to the patterning of subsistence activities and settlement locations of aboriginal hunter-gatherers occupying temperate and high latitudes. As Shalk (1977) has

pointed out in discussing anadromous fish resources, seasonality influences the structure of the resource base in terms of its temporal and spatial distribution, abundance and diversity. Any attempt to formulate a model of subsistence patterns for a group or to interpret and understand specific site usage must take into consideration the seasonal variability in the resource base being exploited.

Figure 45 presents the relative location, with respect to ecological zones, and the seasons in which different resources of the Stikine Plateau are most abundant and available for exploitation.

Detailed knowledge and understanding of the environment, characteristics of each resource, and seasonal variation in abundance and availability were necessary to the aboriginal hunter for making decisions about how, when, and where different resources were to be exploited. This knowledge is reflected in the Tahltan division of the year, as shown in Table 11. The year is divided into a number of seasons which correspond approximately to our lunar calendar months and starts with October. These divisions are named after the dominant weather condition or the habits of animals.

Table 11. Tahltan Divisions of the Year.

Month	Tahltan name	Meaning
October	men ten chidle	little lakes freeze
November	men ten cho	big lakes freeze
December	gah ura $\theta$ e	rabbits chew on bark
January	tsatsestlia	bad weather month
	hayo diza	middle of winter
February	Itsi isa	windy month
March	ta ten childe	thin crust on snow
April	ta ten cho	thick crust on snow
	tli men etsehi	dogs run about
May	Ihaz isa	animals come out, travel around
June	Eyaz isa	young are born
July	Echich isa	animals shed
August	dediye isa	groundhog month, animals getting fat
September	hostetl isa	animals in prime, ready to hibernate

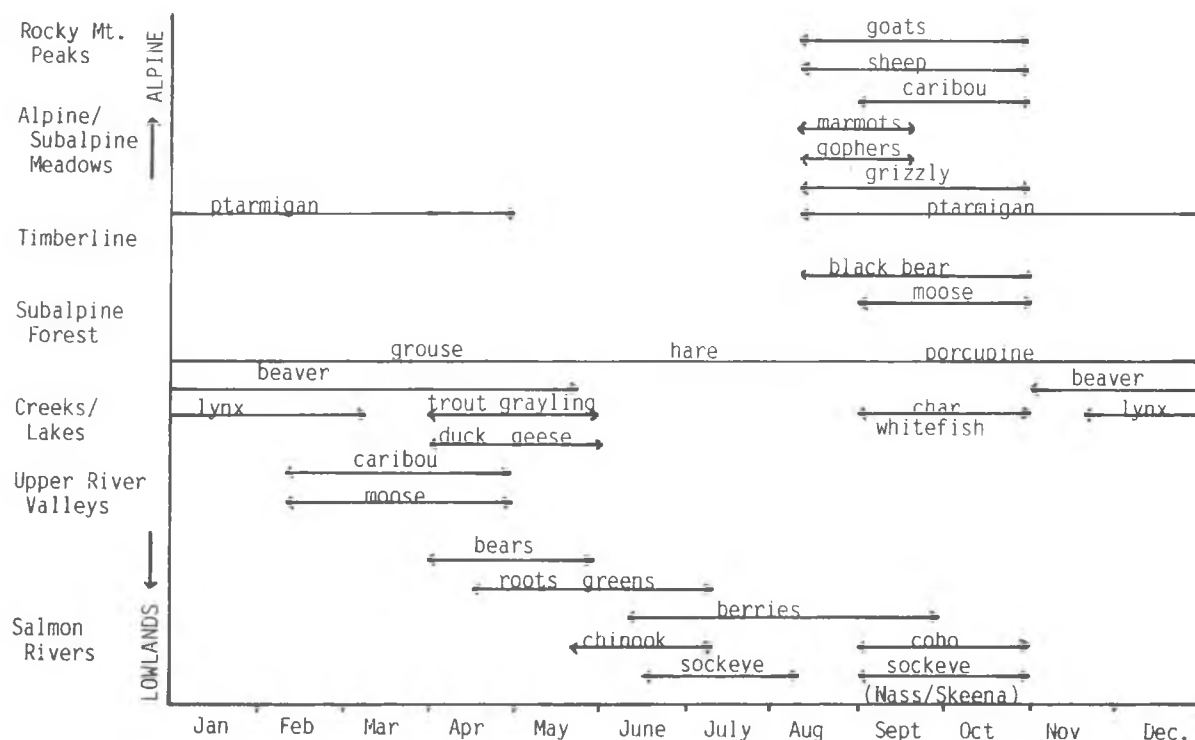


Figure 45. Chart indicating seasonal abundance/availability of resources

### Technological Efficiency

Cold temperatures and stormy weather restrict animal and human populations in midwinter. It is the least reliable and least efficient time of year in terms of successful resource exploitation. To cope with this period of insecurity and insure themselves against the risk of starvation, Tahltan people preserved and stored large quantities of foods during periods of abundance so that they could be used when weather conditions prohibited procurement of fresh supplies.

In presenting a circumpolar perspective on hunter-gatherer groups in arctic and subarctic environments, Graburn and Strong (1973:77) emphasize the importance of strategic hunting for procuring large quantities of food resources at specific times and locations where resources are most abundant with a minimum amount of energy output. Strategic hunting requires the development and use of a complex

technology to ensure efficient food production. In an analysis of food getting technologies of a large sample of groups, Oswalt (1976) defined complexity according to techno-unit values, based on the number of distinct parts used in manufacturing a tool, utensil, or facility. His analysis indicated that hunter-gatherer groups living in arctic and subarctic environments have the most complex technologies, with particular emphasis on the use of a wide variety of complex tended and untended facilities including fences, weirs, traps, snares, and nets. Food production becomes more efficient when tools, implements, and facilities are manufactured and prepared at leisure in advance of procurement activities or within the warmth of a shelter in winter. The technology used by the Tahltan in exploiting different resources is described in Chapter VI.

### The Seasonal Round of Subsistence Activities

As demonstrated by Flannery (1968), predictable, seasonally abundant resources are given first priority in scheduling of subsistence activities. The major runs of salmon in the Stikine Plateau area are predictable in terms of timing and abundance. The arrival of different runs at a particular location are generally predictable to within a few days. Overlapping runs of different species of salmon in the Stikine River system increase the reliability of sufficient abundance to provide both a secure food income and the potential for a relatively large population aggregation.

From mid June to mid August, approximately 100 to 150 people, comprising four to six extended families,

congregated at permanent fishing villages. Village sites were generally located at major creek and river confluences and at outlets of lakes where large runs of salmon passed on their way to spawning grounds and could easily be caught in weirs and basket traps. Some major ethnographically recorded fishing villages and camps are plotted on the maps Figures 46 and 47, and listed in Table 12. While many of these are quite isolated and difficult of access, all locations which have been investigated by means of survey have archaeological remains in evidence of their use in prehistoric times. Sites 15 to 20 in Figure 47 are recorded ethnographically as Tlingit fish camps. Increased trade between the Tahltan and coastal Tlingit during the protohistoric

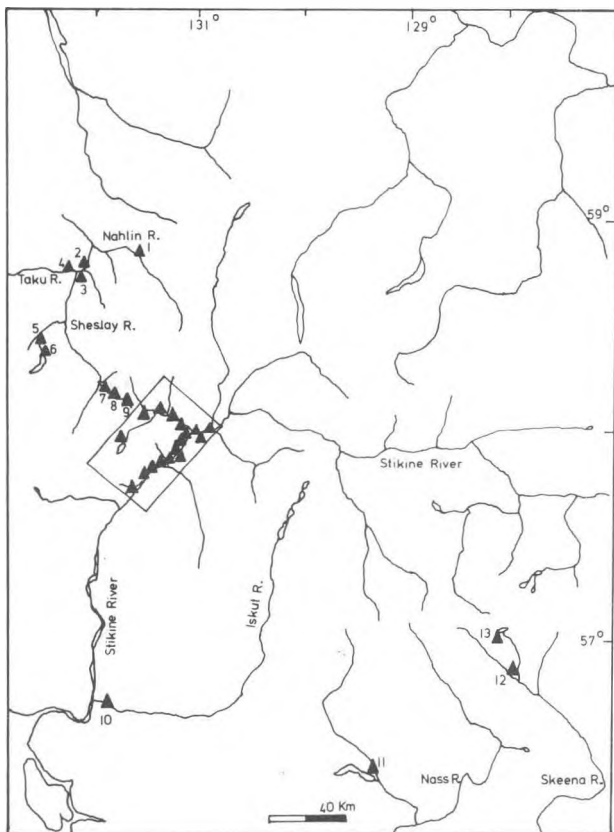


Figure 46. Salmon fishing villages in Tahltan territories (inset area expanded in Figure 47)

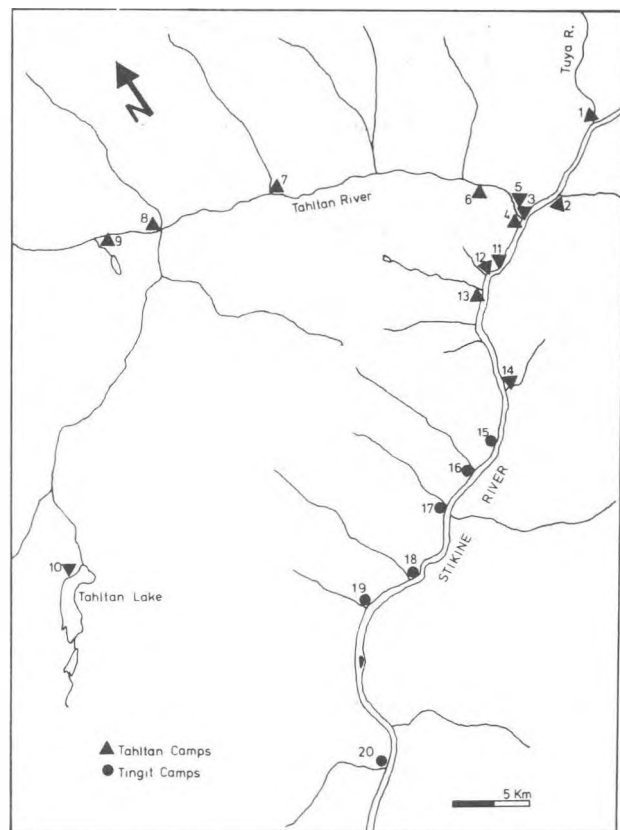


Figure 47. Salmon fishing villages on the Stikine River system

Table 12. Salmon Fishing Villages in Tahltan Territories.\*

No.	Name Recorded	Location	Reference
Part A Fishing Villages on Other River Systems			
1.	Moeyan	on the headwaters of the Nahlin River	Teit n.d.
2.	old camp	on northwest side of Nahlin River	Tahltan elders
3.	Naalin	on south side of Nahlin River, two miles above confluence with Sheslay R.	Teit n.d.
4.	Tagun	on Taku River, prominent during mid 19th century and war with inland Tlingit	Tahltan elders
5.	old village	on Tatsatua Creek	Tahltan elders
6.	old village	at outlet of Tatsamenie Lake	Tahltan elders
7.	Kaketza (Sheslay)	confluence of Egnell Creek and Hackett River (Salmon Creet)	Teit n.d.
8.	fishing camp	on Hackett River (Salmon Creek) close to Copper Creek	current elders
9.	fishing camp	on Hackett River (Salmon Creek) a little below Hatchau Lake	Teit n.d. Tahltan elders
10.	Saksina	the Iskut River, above the Stikine	Teit n.d.
11.	Owidza	on the Nass headwaters, near Bowser Lake	Teit n.d., Tahltan elders, Duff 1959:30
12.	Kluetondon	on creek of same name running into the Skeena	Teit n.d. Thorman n.d. current elders
13.	Klueyaza	at outlet of lake by same name	current elders
Part B Fishing Villages on Stikine River System			
1.	Hose Garn	Stikine-Tuya River confluence	Emmons 1911:18,32 Thorman n.d.
2.	very old village	south bank of Stikine, a few miles above Tahltan confluence	Emmons 1911:32



Table 12 (continued).

No.	Name Recorded	Location	Reference
3.	Titcaxhan	Tahltan-Stikine confluence, east bank	Teit 1956:47
4.	Teetcharani	Tahltan-Stikine confluence, west bank	Emmons 1911:32
5.	Tsaqudartse	Tahltan River, close to Stikine	Emmons 1911:32 Teit n.d.
6.	Owanlin	Tahltan River, three miles above Stikine	Teit n.d.
7.	Thludlin	Tahltan River, 12 miles above Stikine	Emmons 1911:16,32
8.	old village	Tahltan Forks	Teit n.d.
9.	Saloon (Sagu)	Little Tahltan River, below confluence of Saloon Creek	Royal Commission 1915, local informants
10.	Guna	Tahltan Lake	Thorman n.d.
11.	old village	Stikine River, close to eleven mile creek	local informants
12.	Tuxtatoni	Stikine River, at mouth of ten mile creek	Teit n.d.
13.	Tsetake	Stikine River, at nine mile creek	Emmons 1911:32 Teit n.d.
14.	Chicanada	south bank of the Stikine, 5 miles above Telegraph Creek	Thorman n.d., Emmons 1911:32, Teit n.d.
15.	Nakishan	Tlingit camp on Stikine, 2 miles above Telegraph Creek	Thorman n.d.
16.	Klegohin	at present Telegraph Creek, Tlingit Camp	Thorman n.d.
17.	Tlingit camp	Stikine River, 3 miles below Telegraph Creek	Thorman n.d.
18.	Dodjatin Creek	six miles below Telegraph Creek	Thorman n.d.
19.	Kittishan	eight miles below Telegraph Creek	Thorman n.d.
20.	Tlingit camp	Shakes Creek	Thorman n.d.

\*numbers refer to locations in Figures 45 and 46.

period was facilitated by intermarriage between the two groups, resulting in the formation of an additional Tahltan clan which claimed fishing and hunting rights on the lower Stikine. Several Tlingit families ascended the Stikine to dry salmon and berries in the dryer interior climate.

At village locations, large communal houses, constructed of spruce and pine poles with gable roofs covered with spruce bark, were used as shelters and for drying large quantities of salmon for storage. Although built by men, these smokehouses are referred to as belonging to women of the clan. While these houses required a great energy investment in their construction, in the dry interior climate they remain standing and functional for over 50 years with a minimal amount of maintenance.

Many preparatory activities were carried out during the first two weeks prior to the arrival of the major sockeye runs. The collection of bark and roots, from a variety of tree species, in June was a major activity in which everyone participated. Men collected the large, heavy strips of spruce bark used for covering house roofs and lining storage pits, while women gathered spruce roots and the bark of smaller trees such as birch, willow, and poplar, used for making baskets, twine, and cordage (Thorman n.d.). While men were involved in constructing a new smokehouse or repairing older ones, building weirs, basket traps, and gaff poles, women were busy manufacturing nets, baskets, tools, and other utensils which they used during the fishing season.

During the peak season of the runs, men were responsible for maintenance of procurement gear and facilities and the procurement of salmon, or bringing it to shore. Once on the shore, women took charge of butchering and preparation of salmon for the drying process. Children helped with the gathering of firewood, carrying of water, and packing of fish, as they became able. Each extended family, occupying a separate smokehouse, would process between 1600 and 2000 salmon during the season. Summer was also a time of ceremonies, feasting, and trading. At the

close of the fishing season, bundles of dried salmon were stored away in the numerous cache pits in the vicinity of the village to be used later in winter or in times of emergency.

In mid August families dispersed from the large village sites in the major river valleys to smaller seasonal camps in alpine areas, as illustrated in Figure 48. These camps were located near the heads of the many small tributary creek valleys of rivers such as the Tahltan, Klappan, and Mess Creek. Each extended family of about 25 people occupied a separate camp for a period of two to four weeks. From these camps located at timberline, at the ecotone between alpine meadows and subalpine forest, several kinds of resources were exploited. At this time of the year, when several important resources were abundant and available at the same time, small work groups formed along sexual lines. Women and children were involved in snaring marmots, ground squirrels, and ptarmigan, as well as gathering large quantities of berries, during daily trips in the vicinity of the camp. Small groups of four to six men and boys made expeditions to hunt larger game animals such as sheep, goats, and caribou, in alpine areas where temporary camps of one to several days duration were made.

Marmots and ground squirrels live in large colonies in localized areas in alpine and subalpine meadows. Although they are active for about five months, they are fattest just prior to hibernation in late September. Easy to snare, they provide a reliable and efficient food source when procured and dried in quantity and also provide skins for making warm clothing.

Although bears are not so numerous, their large size, high fat content in early fall, and predictable behavior at this time of the year (competing with people for many of the same resources) make them a highly desirable food resource. Bears were generally taken with snares set in the general vicinity of the camp, although they were also killed with bow and arrows whenever encountered. Tahltan elders indicate that women also participated in the hunting of bears, sometimes out of necessity

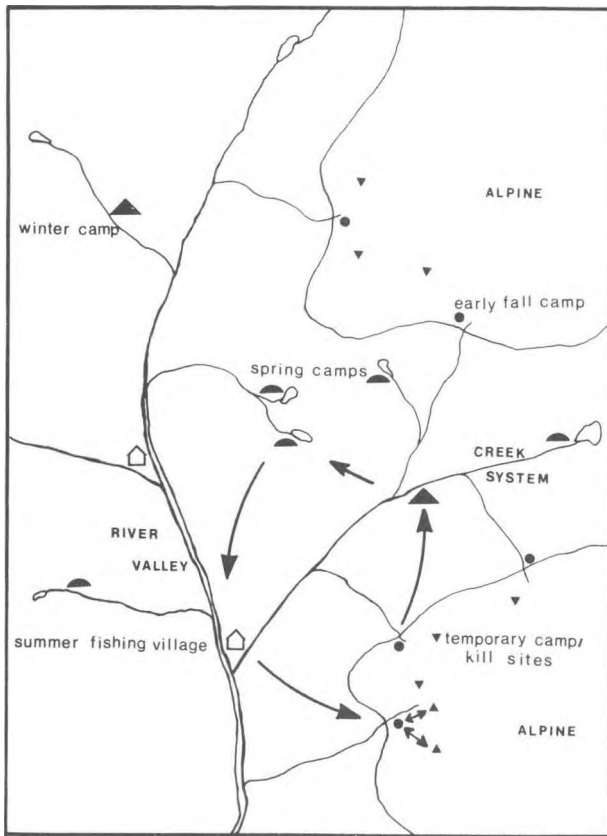


Figure 48. Schematic representation of major seasonal moves and settlement locations

to protect themselves and their children during other gathering activities.

Sheep and goats form small gregarious bands in the alpine zone. Although wary of hunters, they could be taken with snares set along their trails or stalked with bow and arrows. Their high fat content in fall as well as the non-food materials which they provide make them a highly desirable resource in early fall. They are largely inaccessible or conflict with other resources options at other times of the year.

Large quantities of food gathered in early fall were processed and stored for later use. As many as 200 to 300 marmots and gophers were split and dried for storage. Dried gopher meat was often stored in the dry leathery skins of salmon after the flesh had been eaten. The flesh of two or three bear and several sheep or goats would be dried on poles over the

campfire. Large quantities of fat were rendered and stored for winter use. Dried meat, berries, and rendered fats were stored in cache pits in the vicinity of early fall camps at timberline, or were transported to major fall and winter camps, located in the middle to upper reaches of major river valleys, as illustrated in Figure 48.

Moose and caribou are present in the environment year round, and could be hunted at any time. Patterns of seasonal movement of both species are quite predictable. They are most efficiently hunted when animals aggregate in larger groups during fall just prior to rutting and again in late winter-early spring. Moose were commonly captured by means of large snares set in their trails or by means of stalking with bow and arrow.

The woodland caribou of the Stikine Plateau provided the Tahltan with a reliable staple food resource. Having predictable seasonal movements from alpine tundra to forested valleys during fall and late winter, caribou were most commonly captured by means of rawhide snares set at intervals in fences, often several miles long, constructed at strategic locations along their migration routes. Both men and women of several extended families cooperated in driving caribou into snares. While the meat from animals caught in the snares was shared among the group of people hunting together, hides of the animals belonged to the women who had made the snares in which they were captured.

Caribou and moose were important not only for their meat but also for their hides which were dressed for making of clothing, babiche for snares and cordage, sinew for thread and twine, as well as antler and bone for the manufacture of a variety of tools and utensils. While men skinned and butchered large animals such as caribou into major body parts, women prepared meat for drying and storage and also processed the skins. Each extended family of about 25 people would procure and process between 20 and 30 caribou or moose per year in order to meet its needs for meat and hides. Large quantities of dried meat and rendered fat were stored in cache pits in the vicinity of fall and winter

camps for later use.

Major fall and winter camps were located within the protection of forested valleys, where firewood was abundant, and in the vicinity of caribou yarding areas or migration routes where fences were constructed. Abundant resources at these locations and the need for cooperation in capturing and processing animals allowed larger groups of 50 to 100 people to come together. The approximate location of several fall/winter camps and caribou fences are plotted on the map, Figure 49. Camps were generally located about a kilometre from fences. Two or three camps might be found along very long fences. In some localities major village sites may have been occupied in both summer, during salmon fishing season, and in midwinter.

Smaller mammals and ground birds are generally more dispersed throughout the landscape and are not so greatly affected by seasonal changes in abundance and availability, so could supplement the diet at any time during the year. Smaller animals and birds were generally captured by means of snares, traps, or nets.

Stores of preserved and dried foods were relied upon extensively during midwinter when weather conditions were bad and hunting poor. Fresh supplies of food were hunted whenever weather conditions allowed, including moose, caribou, beaver, hare, grouse, and porcupine, as well as ice fishing in the lakes. Leisure time in winter was spent in repair and manufacture of tools, snares, netting, ropes, robes and clothing.

A variety of resources became abundant and available again in spring. In late April families dispersed to smaller seasonal camps located near good fishing lakes and streams, as illustrated in Figure 48. Women and children of an extended family remained at these camps to gather large numbers of trout and grayling. Over a thousand fish would be dried on temporary drying racks and stored for later use. Rabbits and grouse were snared in the vicinity of the camp. Women and children also gathered a variety of vegetable foods. Roots, leaves, tender shoots and stems, and cambium of

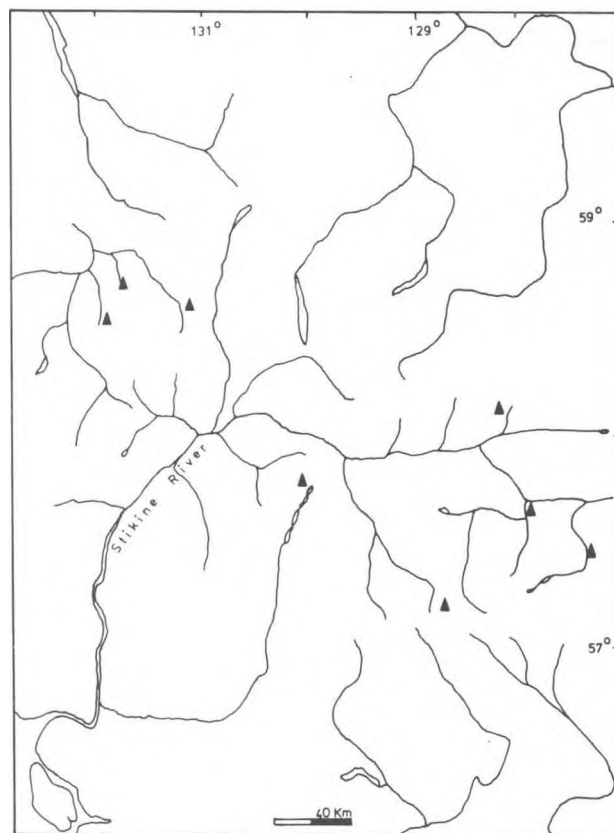


Figure 49. Approximate location of several winter villages and caribou fences

several different plant species were all gathered and eaten fresh in spring.

Several species of migratory waterfowl were abundant in April and May in the many small lakes and marshes. Bears were also hunted in spring after coming out of their dens. Men often dispersed in pairs or small groups to hunt beaver in the small lakes and tributary streams. As many as 40 beaver could be caught by two to four men of an extended family in a period of two to three weeks. The trapping of large numbers of beaver in spring helped to keep streams open to spawning grounds of salmon and other fresh-water fish. Beaver were split and dried whole over an open campfire. Supplies of dried fish and beaver meat were transported back to major winter sites for storage or to summer fishing villages for use during the summer.

In summary, the diverse plant and animal species supported by the Stikine Plateau area vary in their potential for fulfilling basic subsistence requirements for food and sources of raw materials. Resources are abundant and available for exploitation at different times of the year and in different ecological zones. The Tahltan were traditionally semi-nomadic in their yearly round of subsistence activities, with a pattern of aggregation at summer and winter village sites, located in areas of abundant and reliable resources, and dispersal in smaller family groups during spring and early fall.

Annual runs of anadromous salmon provided a reliable, staple food source which permitted several extended families to congregate at permanent fishing villages along major rivers for about two months in summer. In early fall families dispersed to separate camps in alpine areas where women and children snared large numbers of marmots and ground squirrels and gathered berries while men hunted larger animals including sheep, goats, and bear. Several families gathered at major fall and winter camps, located within the protection of

forested valleys, to cooperate in capturing caribou in long fences with snares, during predictable movements from alpine tundra to forested river valleys. Caribou and moose were staple resources which provided not only meat but also raw material for manufacturing clothing, babiche, and a variety of tools and utensils. In spring families moved to smaller camps near lakes and streams to procure fresh-water fish, migratory waterfowl, vegetable foods, and beaver.

The Tahltan maintained a complex technology to ensure efficient harvesting of abundant and reliable resources. Procurement techniques emphasized the use of facilities such as fences, snares, traps, and nets, which could be adapted for a wide range of different fish and animal species. The procurement of raw materials for manufacturing of tools and implements, snares, and clothing, was largely carried out during the course of other subsistence activities. Large quantities of seasonally abundant food resources were processed and stored in cache pits in the vicinity of major camps and villages for use during midwinter or times of emergency.

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