

**PLATEAU FISHING TECHNOLOGY AND  
ACTIVITY: STL'ATL'IMX, SECWPEMC AND  
NLAKA'PAMUX KNOWLEDGE**

**NICHOLETTE PRINCE**

Curator, Plateau Ethnology  
Canadian Museum of Civilization  
100 Laurier St., PO Box 3100, Stn. B  
Hull, QC J8X 4H2 Tel (819) 776-8485  
Email: nicholette.prince@civilization.ca

**ABSTRACT**

The image of Aboriginal men perched over turbulent water with fish nets in hand is well known to many people. Though this picturesque scene may be viewed as romantic and daring, it is actually a way of life for many people in the Plateau region of British Columbia. The ability to carry out this practice relies not so much on bravado and adventure but rather on knowledge of the people passed down for generations.

In a museum environment, collection and presentation of many facets of various cultures is a primary focus. Documentation of Aboriginal fishing from the Plateau region of British Columbia has been very weak, however. The Canadian Museum of Civilization (CMC) has only a few artifacts related to fishing. These do not accurately reflect the importance of fishing to Interior Salish peoples, such as the Stl'atl'imx, Secwepmc, and Nlaka'pamux. Nor does the collection encompass the variety of tools and techniques employed by fishermen in this region.

Fishing activity is better represented in archival photographs held in the CMC, the Royal British Columbia Museum (RBCM), and Provincial Archives of British Columbia. These photographs span from circa 1868 (Frederick Dally photographs) to the 1950s.

**INTRODUCTION**

In 1999 I began research on the topic. Initially, I planned to conduct field research to document contemporary fishing practices. However, I was unable to continue field research, so shifted focus to summarize ethnographic fishing practices of Secwepmc, Nlaka'pamux, and Stl'atl'imx people; to analyze fishing tools held in museum collections; and to review various impacts on Plateau fishing practices throughout history. Finally, I provide a summary of contemporary fishing practices as observed through my own field research and by others involved in fishing today.

**FISHING IN THE PLATEAU REGION**

There is general agreement among scholars that fishing activities, especially those related to salmon, have been the foundation of Aboriginal economic, cultural, and social lifestyles along the Fraser, Thompson, and Nicola rivers. All Interior Salish groups have access to fish and salmon is the most abundant. The principal salmon harvested along interior rivers are Chinook (*Oncorhynchus tshawytscha*) and Sockeye (*Oncorhynchus nerka*). Chum salmon (*Oncorhynchus keta*) were part of the Fraser River fisheries before the nineteenth century. Coho salmon (*Oncorhynchus kisutch*) travel up to the middle reaches of the Fraser River in the summer. Steelhead salmon (*Salmo gairdneri*), sometimes referred to as trout, is also available in the Fraser River<sup>1</sup>. According to Pokotylo and Mitchell (1998), the distribution and population densities of the Plateau people are directly linked to their access to this resource. Archaeological evidence of "extensive exploitation" of salmon dates back three thousand years (Lohse and Sprague 1998:25). Harris (1997) estimated that the Fraser Canyon supported large human populations prior to the devastation caused by introduced diseases. This large population could only be maintained with sufficient food resources, in this case salmon that was caught and cured along the banks of the river. In aboriginal times, the ability to process and preserve fish influenced the amount of fishing that would take place. Once the dry racks were full, one had to wait until the fish were sufficiently dry before removing them and filling the racks once again.

Little research has been done on the level of fish consumption other than salmon. However, a variety of other fishes is harvested in the Plateau area. Many of these species are resident year round, and so are consumed fresh. These fish include: largescale suckers (*Catostomus macrocheilus*), northern pikeminnow (*Ptychocheilus oregonensis*), peamouth (*Meilocheilus caurinus*), mountain whitefish (*Prosopium williamsoni*), Dolly Varden trout (*Salvelinus malma*), cutthroat trout (*Oncorhynchus clarki*), longnose suckers (*Catostomus catostomus*), and lake trout (*Salvelinus namaykush*).

The geography of British Columbia's Plateau region is varied, from high mountains to rolling foothills and vast grasslands, all intersected by large rivers. Aboriginal people of this region have developed distinct languages and societies

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<sup>1</sup> The health of all salmon stocks other than the Sockeye is now considered precarious or nearing extinction.

but share some cultural traits. Perhaps the most evident of these is their reliance on fishing. Interior Salish groups included in this research are the Stl'atl'imx, Secwepemc, and Nlaka'pamux (their traditional territories are shown in Figure 1).

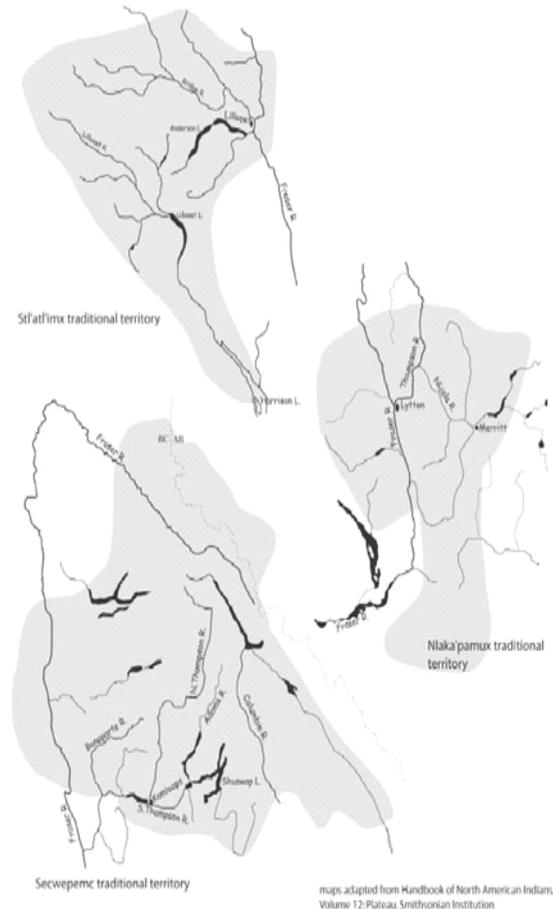


Figure 1. Maps of the traditional territories of the Stl'atl'imx, Secwepemc, and Nlaka'pamux Interior Salish groups of British Columbia.

### *Stl'atl'imx*

The Stl'atl'imx are also called Lillooet and can be divided on the basis of dialect and geography into Upper and Lower divisions (Kennedy and Bouchard, 1998). The term Stl'atl'imx designates them as speaking the same language. The Upper Stl'atl'imx share more of the Plateau cultural traits while people living in the Mount Currie region tend to be tied closer to the Halkomelem peoples of the lower Fraser River.

A comprehensive study of Stl'atl'imx fishing is found in Hayden (1992), which compiles research on Stl'atl'imx resource use, both historical and contemporary. The Stl'atl'imx have some of the best salmon fishing and wind

drying spots in their territory. In Aboriginal times, spring salmon began running in April, followed by a second spring salmon run in late summer, then a series of sockeye salmon runs starting in June. Due to the decline of many fish stocks today, the majority of Stl'atl'imx fishing is now centred on the sockeye runs of July and August at the Bridge River /Six Mile site near the town of Lillooet.

Teit (1906) noted that the Stl'atl'imx used a variety of fishing gear:

*The Upper Lillooet gathered at different places along the Fraser River between Lillooet and the Fountain, where they caught large quantities of salmon with bag-nets. The spears used were similar to those of the Thompson Indians. Single and double pronged spears were used from the shore, and three-pronged ones from canoes or rafts. Very long-handled spears and gaff-hooks were used for catching fish in muddy pools or large eddies. Barbed hooks of antler with short handles, as well as spears with detachable points, were used for pulling out fish at weirs or dams. Metal hooks were used at the present day. Fish-traps were of two kinds, as among the Shuswap and Thompson Indians. They were set at gates or openings of weirs, in creeks near the outlets of lakes, or near mouths of creeks flowing into lakes. .. Fish were also caught with lines and baited hooks. The latter were made of bone, wood, and thorns of the hawberry-tree (*Crataegus rivularius* Nutt.). Copper hooks were also used, which were similar in shape to the double bone hooks of the Thompson Indians (227-228).*

Once caught, salmon was wind or smoke dried and kept over the winter. Some fish was rendered into fish oil, a practice that does not appear to be common today. The American Museum of Natural History has a number of Stl'atl'imx artifacts related to fish oil rendering which are not found in other collections. Teit collected these near the turn of the twentieth century. The process for rendering salmon oil is mentioned by Kennedy and Bouchard (1992; 1998) but it is not evident whether or not fish oil is still produced today. I did not see fish oil production in 1999 nor did I hear people talk of it.

Stl'atl'imx people are renowned for their wind dried salmon. Today, as in the past, they wind dry salmon in August when grasshoppers are singing. It is said that when grasshoppers make a particular clicking sound, it resembles the

sound of a knife cutting through a salmon's backbone, announcing that conditions are perfect for wind drying.

### *Secwepemc*

The Secwepemc people are also known as the Shuswap and the two names are used interchangeably. There are seven divisions of Secwepemc people within seventeen bands. Their territory is in the southern interior of British Columbia, around the Thompson and Fraser rivers. Traditional villages and current Indian reserves are located along the rivers. There are two physiographic areas within Secwepemc territory, known as the Fraser and Thompson plateaus. The Fraser plateau is characterized by rolling lowlands along the Fraser River between the Coast and Rocky Mountains (Ignace 1998). The Thompson plateau includes narrow plateaus and highlands of Cascade and Coast mountains. The Secwepemc territory is rich in salmon spawning beds. It is estimated that "about 57% of all Fraser River sockeye salmon, as well as 25 to 34% of Fraser River Chinook and Coho salmon respectively" spawn in Secwepemc territory (Pinkerton and Weinstein, 1995:149).

Ignace (1998) and Teit (1909) have documented traditional Secwepemc fishing practices. According to Ignace (1998), fish weirs were important to Secwepemc fishing<sup>2</sup>:

*The weirs consisted of a framework of poles, ticks, and rush, which were built across a creek like a fence. As they gathered in front of these fences, salmon were speared or dip-netted by the fishermen. Another form of weir consisted of two fences, the first one of which was built in such a way as to be penetrable by the salmon ascending the river, but preventing their return. The fish thus remained between the two fences until they were removed with spears (p. 206).*

Ignace went on to discuss the egalitarianism of the Secwepemc in sharing salmon and other resources. Men fished together and their catch was distributed among the various families participating in the fishing. Additional fish were caught and sometimes processed for the elderly or those incapable of doing this work themselves. This practice continues today.

The continuing importance of fishing to Secwepemc is evident in the cultural and educational material they produce today. Fishing activities are featured in the Secwepemc Heritage Centre in Kamloops. This exhibit includes a salmon trap, a *mineep* (toggle spear), a dip net, two leisters (one made with bone and wood, the other from a pitch fork), and fishhooks as examples of Secwepemc fishing technology. The Heritage Centre has produced a video entitled "how to make a pitch fork leister" which is used in schools. The Secwepemc Cultural Education Society (SCES) has produced a number of textbooks that include information on fishing. The Teachers Guide, for example, states as one of its learning objectives of the summer module, "Students will recognize the ingenuity of Shuswap fishing technology" (Mulligan 1988:37).

### *Nlaka'pamux*

Nlaka'pamux people have been known by other names including Thompson, Couteau, or Knife Indians. They are divided into Upper and Lower groups; currently there are fourteen Nlaka'pamux bands. Nlaka'pamux territory, like the people themselves, can be divided into two areas. The upper area is characterized by dry grasslands along river valleys with the higher elevations covered with fir and aspen. The lower area is more influenced by the coastal climate with stands of cedar and fir (Wyatt 1998). Villages were located along the Fraser, Nicola, and Thompson rivers. One of the most important fishing sites and trading areas was near Spences Bridge, at the confluence of the Nicola and Thompson rivers.

Little research has been done on Nlaka'pamux fishing practices since James Teit's book *The Thompson Indians of B.C.* was published in 1900. Wyatt devotes two paragraphs to fishing in a chapter on Nlaka'pamux culture; she mentions their use of "a variety of hooks, gorges, nets, and traps" (Wyatt 1998:193). According to Teit (1900), the principal fishing gear was the bag or dip net. This type of net is attached to a hoop at the end of a pole and the fisherman dips it into the water to catch fish. It is used in areas where the fish "hug the shore" in their attempt to move upstream against a strong current (Teit 1900: 250).

Nlaka'pamux had numerous fishing sites along the Fraser River. While traveling along the Fraser River in 1868, photographer Frederick

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<sup>2</sup> Aboriginal people have not been permitted to use weirs and traps for many years. As part of an Aboriginal Fishing Strategy project, the Secwepemc maintain a fish monitoring fence at Scotch Creek where people are allowed to catch salmon.

Dally had opportunity to see many active fishing sites from Yale northward<sup>3</sup>:

*They build a light platform of poles jutting out of the clefts of the rocks overhanging the river with two or three short planks to stand upon. There are numbers of each in the rocky places of the Fraser River cañons for about 20 miles above Yale (I have not observed them anywhere else either on Vancouver Island or British Columbia). They certainly are very light and picturesque to look at, but for anyone but the most skilled to stand upon, most dangerous. An Indian will stand in the hot sun with only a shirt and pair of pants all day, over the boiling and wirling [sic] eddies below him intent on looking into the water, with his long pole and net ready to plunge it into the water, and bring up a heavy struggling salmon perhaps weighing 20 lbs. He skillfully lands the fish at his feet, strikes it a blow on the head, then puts his forefinger into its gills and dexterously throws it to his wife or family who are on the watch near at hand and at once proceed to gut it. Then they split it with many others on a light frame work of poles beneath which a fire is kept burning and what with the smoke and sun together they are thoroughly dried and seasoned and rendered fit for storing... Some of the salmon cured in that way are excellent eating. I enquired [sic] of an Indian whether any of those who fished from those light temporary looking structures over the river were ever lost. He informed me that two had been drowned during the late salmon season. Should an Indian happen to fall in there is not the faintest hope of his ever reaching land alive... Salmon in ascending a rapid river like the Fraser require to stop and rest in these eddies before making a spring for higher water, as the water is no where level in these cañons. Then is the Indians [sic] opportunity to catch them in his net (BC Provincial Archives MS2443 box 1 file 13).*

People stopped building and using fishing scaffolds around the 1960s (Kennedy and Bouchard 1992). I have found no reason for the abandonment of fishing platforms, but I suspect it may be that people now travel to fishing sites where the fishing is easier.

#### IMPACTS ON FISHING IN THE PLATEAU REGION

As in other parts of North America, there came a time when settlement of the Plateau region by non-Aboriginal people began. "First contact" between Plateau peoples and non-Natives is generally identified as the meeting in 1808 of Simon Fraser, an explorer for the Northwest Company, as he descended the river now named after him.

Fort Kamloops was built in 1811 and the Plateau peoples were drawn into the fur trade. Dried salmon became a commodity of trade. It was purchased for provisioning post employees, as transporting food to this remote region was very expensive. The Fort Kamloops trade journal of 1822 includes the notation, "Mr. Montigny(?) and 10 men started for Fraser River, he has goods to the Amount of 364 Skins, the principle cause or reason for sending him to procure dried fish for our winter. [illegible] we have nothing else to depend on but dried salmon" (HBCA B.97/a/1 August 26<sup>th</sup>). Teit (1906) also noted this practice. "Sometimes Hudson Bay Company employees would come as far as Spences Bridge, trading tobacco, ribbons, etc., for furs and dried salmon" (Teit 1900:260). Salmon was sold by the "stick" which was about 100 salmon (Teit 1900). The September 24<sup>th</sup> inventory for that year reveals a stock of 10,300 dried salmon "in store." (HBCA B.97/a/1 Sept.26<sup>th</sup>).

The 1858 Cariboo Gold Rush hurried the arrival of Europeans into the B.C. interior. An estimated 25-30,000 miners arrived that year (Laforet and York 1998). Almost immediately, salmon fisheries were affected as miners disrupted creeks where salmon spawned in search of gold. In 1858 there was an incident where Aboriginal people attempted to stop miners from disturbing salmon spawning beds (Souther 1993); this event foreshadowed many other confrontations over the next century. In 1860 construction of the Cariboo Wagon Road began, again increasing people's access to the interior.

The Indian Act, first passed in 1876, marked the beginning of legislated control of Canada's Aboriginal people. Native people in the Plateau region would soon feel the effects of legislation by the colonial governments (federal and provincial) on fishing and other activities. The earliest fisheries legislation was the Dominion Fisheries Act in 1878. It made no mention of Indian<sup>4</sup> fishing but restricted the use of nets in fresh water, which related directly to Aboriginal

<sup>3</sup>Text has been edited from the original by adding punctuation and capitalization.

<sup>4</sup> Indians is used here as the legal term with regards to the Indian Act. Any Aboriginal person not defined as an "Indian" under the Act could not, in effect, participate legally in the fisheries.

fishing practices (Ware 1978:20). The practice of bartering or selling salmon was not acknowledged in this legislation. That year, the Indian Reserve Commission under Gilbert Malcolm Sproat, began setting aside reserve lands in the Plateau region. Already at this early date, there were tensions over the land as settlers and miners had taken much. When reserves were surveyed, some fishing sites were identified and set aside as reserve lands in recognition of the importance of fishing in the region. In some instances, the reserve commissioner noted an "exclusive right" to fish for salmon in certain areas along the rivers (Harris 1998).

The following decade, Aboriginal people were specifically restricted from selling salmon by the British Columbia Fishing Regulations Act. The salmon run of 1886 was particularly small and with 6,000 commercial fishermen already on the Fraser River, competition for the fish was fierce (Newell 1997). In 1886, new fisheries regulations were enacted which restricted aboriginal peoples' access to fish (Newell 1997; Ware 1978).

At the turn of the century, a number of canning and fishing enterprises owned by Euro-Canadians were operating along the British Columbia coast. These owners actively lobbied government to restrict fishing by Aboriginal peoples as they were in direct competition for the same fish stocks. As a result, Native people throughout the province found themselves requiring "special" permission to fish by 1894. By 1910 the Fishing Regulations Act limited Aboriginal fishing to specific areas and times. In addition, it defined legal fishing gear based on Euro-Canadian models (Newell 1997).

Two railway lines were built along the Fraser to Lytton then along the Thompson River as far as Oregon Jack Creek. The Canadian Pacific Railway was completed in 1885 and the Canadian Northern Railway in 1915. Rock slides caused by railway construction in 1913-1914 disrupted the salmon runs (Newell 1995). Laforet and York (1998) described the events.

*In 1913 a slide of rock and debris caused by CNR construction blocked the Fraser River, stopping the upriver passage of sockeye, and in February 1914 a slide at Hell's Gate compounded the already serious damage. Because it was the very populous 'fourth-year' run, the implications for succeeding runs were serious (p.100).*

While some of the devastation to the fisheries was ecological, there was also political fallout for

the Aboriginal people. According to Souther (1993)

*When the magnitude of the Hell's Gate disaster was acknowledged by officials in 1914, it was the Natives who again bore the brunt of restrictions, in the name of conservation. Traditional methods of fishing with dipnets and sidenets were banned and officials attempted to prohibit all fishing between Hope and Lytton (p.11).*

Chiefs and community members protested to government representatives and sent letters to the editor protesting fishing closures, demanding the restoration of fishing or, at least, compensation (Laforet and York 1998: 100). Testimonies at the McKenna-McBride Commission hearings in 1914 and 1915 often included complaints about disruption to fishing. In 1915 the Chief Inspector of B.C. fisheries stated that Aboriginal food fisheries had to be limited further as their effect on the commercial fishery was too profound. In 1922 the permit system was established whereby Aboriginal people had to apply for a permit to catch salmon for personal consumption (Newell 1997; Souther 1993). From that point on, B.C.'s Aboriginal peoples barely held on to their fishing rights, and were constantly at the mercy of government legislation, which openly supported commercial fisheries<sup>5</sup>.

Disruptions and limitations to Aboriginal fishing have continued through the twentieth century. Legislation, guardian patrols, and outright intimidation of Aboriginal fishermen created a tension-filled environment that became part of the summer news of British Columbia, along with forest fires and tourist reports. While Pacific coast salmon provided a lucrative income for those involved in the commercial sector, the opportunity for Aboriginal people to fish for their own purposes was often curtailed or severely restricted. During the second half of the nineteenth century, a continuing history of protests, arrests, confiscation, and confrontation marred Aboriginal fisheries.

*Nowhere was the issue of the Indian fishery more pressing than on the all-important Fraser River where over half the B.C. Indian food-permit salmon was caught. New fisheries regulations for British Columbia for the 1967 season*

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<sup>5</sup> It is interesting to note that it was during this early turbulent time when most current museum collections of fishing artifacts were created. Fishing implements collected by James Teit, Charles Newcombe and Harlan Smith were acquired between about 1900 to 1920.

*closed Fraser River fishing from Mission Bridge to Lytton from 3 to 25 July, citing the need to protect the crucial early sockeye run at Stuart Lake. Officers conducted 24-hour patrols, arrested Indians, and confiscated Indian nets – all in the name of fish conservation. But conservation for whom? As Indians were quick to observe, the industrial salmon fishery of the Fraser estuary remained open during this period (Newell, 1993:146).*

In addition to government pressures in the twentieth century, the increased occupation of land along interior rivers disrupted Aboriginal people's access to many fishing sites. Railway lines, highways, roads, and bridges sometimes facilitated access to fishing stations but they also made these places more accessible to everyone. Towns grew up along the Cariboo Highway and logging rapidly became the main industry of the province. Several large mines opened in the Plateau region. Increased industry and over-fishing by the commercial sector resulted in the serious decline of some species of fish, especially Chinook.

In 1977 the Fishing Regulations Act was amended again, requiring Native people to obtain a license rather than a permit. This license specifically stated that fish could not be sold or traded. In 1981 further amendments specified species and quantities of fish that could be harvested. Authors such as Newell (1997) and Harris (1998) provide excellent summaries of the effects of legislation on Aboriginal fishing although their research is not specific to the Plateau region.

In 1978, the Union of B.C. Indian Chiefs commissioned a study of the salmon fishing situation. The resulting document *Five Issues – Five Battlegrounds* (Ware 1978) provides a grim view of the Aboriginal fisheries at that time. Ware writes:

*Despite the guarantees for Indian fishing [sic], the Fisheries Department is "granted" sweeping powers to abrogate these guarantees and abolish Indian rights. Such conflicts in laws and regulations made arbitrary and discriminatory actions against Indians possible, even likely. A case in point is the destruction of the Nicola fish dams because it was more likely that damage to the Nicola runs was caused by the mill dam erected by white settlers, rather than the Indian techniques which had been used for many generations (1978:28).*

Ware goes on to say that the "discriminatory actions" comprise the sum total of Canada's and B.C.'s approach to Aboriginal fishing. Through all of this, the belief of the Secwepemc, Stl'at'imx and Nlaka'pamux was that their right to fish was inherent, given to them by their practices and the practices of their ancestors, not by any government.

#### *The Sparrow Decision*

In 1982 Ronald Sparrow, a member of the Musqueam Band near Vancouver was charged by Department of Fisheries and Oceans (DFO) for fishing with an oversized net, according to the *Fisheries Act*. The case went to the Supreme Court of Canada and the resulting "*Sparrow Decision*" brought Aboriginal rights to the forefront of Canadian politics and legislation. In the *Sparrow* case, anthropological evidence was used to demonstrate the integral aspect of fishing to the Musqueam way of life. Sanders (1995) summarized the decision:

*In Sparrow Canada argued that any aboriginal rights to fish had been ended by the comprehensive system of regulation, permits and licences under the Fisheries Act. The Supreme Court of Canada rejected the notion of "extinguishment by regulation". It ruled that extinguishment required legislative measures showing a "clear and plain" intention to extinguish the rights in question. Without such a measure, the Musqueam aboriginal right to fish continued as an existing aboriginal right protected by section 35(1) [of the Canadian Constitution]. .. In managing the fishery in the light of section 35(1), the federal government had to accord Indians a priority over commercial and recreational fisheries (p.17).*

The *Sparrow* decision was celebrated as a victory by Aboriginal peoples throughout Canada but the effects in British Columbia were profound. While many communities were still actively involved in fishing in 1990, the *Sparrow* decision eased some of the tensions surrounding fishing rights and may have re-invigorated Aboriginal fishing practices.

#### PLATEAU FISHING TECHNOLOGY

Traditional technology used for catching fish was similar throughout the Plateau region in both Canada and the United States. Hewes (1998) found that, "fishing gear used by the Plateau peoples was remarkably similar throughout the region, probably representing centuries or

millennia of exchange in techniques” (622). Indeed, variations of fishing technology can be traced to the environment in which one is fishing (i.e. in a lake, stream, river, etc.) rather than to the cultural group of the user.

Throughout history, tools used were primarily long-handled dip or bag nets, harpoons and spears, leisters (three pronged spears), and gill nets. The construction of fishing gear varied slightly from place to place and not all people used all of the tools available. In aboriginal times, materials for the construction of fishing gear were taken from the environment – plant fibre, wood, bone, and stone. After contact, materials such as iron, steel, cotton, and linen were incorporated into the fishing gear. Today there is a mixture of traditional and contemporary materials.

### Dip Net

All Plateau groups make use of the dip net (see Figure 2). Romanoff (1992) and Kennedy and Bouchard (1992) distinguish between a set net and a dip net, though most Aboriginal people I encountered refer to either net as a dip net. Both nets are used in areas where salmon hug the bank of the river, taking advantage of eddies or areas where the current is not swift.

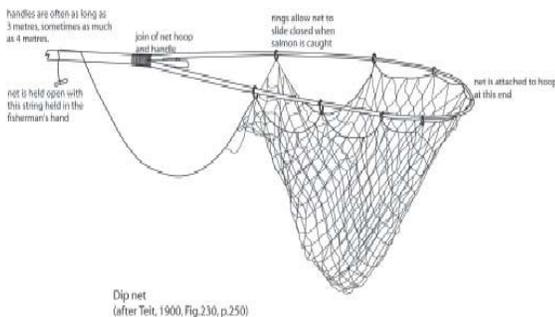


Figure 2. Diagram of the dip net.

The set net is the larger of the hand-held nets and the net is attached to the frame with sliding rings. A cord is attached to the net and held by the fisherman that keeps the net open; when this line is released, the net closes like a purse as it is lifted out of the water. Very often, there is a second person on hand to receive the fish and he or she removes it from the net. While the second person clubs the fish and pulls back its head to bleed it, the fisherman resumes position with his net.

Teit (1900) described Nlaka'pamux dip net fishing techniques and his observations of fishing at the turn of the twentieth century mirror the activities at the turn of the twenty-first century:

*When he [the fisherman] is sure of a capture, he lets go the piece of stick, when the weight of the fish causes the horn rings to come together, and thus close the mouth of the net. The fisherman then draws the net ashore, pulls the stick, thereby opening the bag, and throws the fish out. It is then put into a rather large circular hole made by scraping away boulders [sic], which are piled up around the sides, leaving a clear space of pebbles, sand, or gravel in the centre. The boulders [sic] around the edges form a wall a foot or two high. Near this hole is kept a small stick to be put into the fish's mouth and gills, and to break its neck by pressing the head backward, as well as a short club of wood or stone for striking the fish on the head and killing it when first taken out of the water. (p.250).*

The smaller dip net is fixed and is used in eddies where the water flow is, in effect, reversed thus pushing salmon upstream. Fishermen take advantage of high concentrations of fish in these places, sweeping through the water with a dip net thus catching fish. The fisherman uses a sweeping motion, scooping up a fish and bringing it to shore. There is normally a second person on hand to remove the fish from the net and to club it. I observed this type of fishing at Siska in the summer of 1999. The individuals fishing were using an aluminum fish net purchased commercially, though admitted that the dip nets made traditionally were usually stronger and of better quality.

The CMC collection contains several dip nets but only one (II-C-934) purchased in 1999 is on a frame. The older nets are made with “Indian hemp” (*Apocynum cannabinum*)<sup>6</sup> and are in very good condition (II-C- 640 – dip net from North Bend, 3/4” mesh; II-C- 642 – small fish net, collected by Teit; II-C- 643 – net from North Bend, collected by Newcombe; II-C- 639 – net from Ruby Creek, collected by Newcombe). Few people make Indian hemp nets today as it is time consuming and few remember the techniques for making the twine. People mentioned that they knew of old dip nets made with Indian hemp that were still used for fishing. There was general agreement that Indian hemp was superior to modern cotton or nylon twine.

The CMC also has a set of eight net rings made from bone (II-C- 650), collected by Newcombe between 1895 and 1901. Kennedy and Bouchard (1992) mention metal rings used on

<sup>6</sup> also sometimes called milkweed. For information, see Turner (1990), pp. 159-163

contemporary dip nets. The dip net bought for CMC in 1999 has sliced PVC pipe for net rings.

The American Museum of Natural History's collection includes two dip nets attached to a frame but the handles have been cut short. This may have been done to make it easier to transport them; some dip net handles can exceed four metres! The dip nets are 16.1/28 collected by James Teit, c.1905, 89" long; and 16/1024 collected by James Teit, c.1905, 229" long. Both are listed as Nlaka'pamux, having come from the Thompson River.

The Secwepemc used dip nets but not to the same degree as the Nlaka'pamux and Stl'atl'imx. The dip net displayed at the Secwepemc Heritage Museum is similar in size and construction to others described here. The Canadian Museum of Civilization has two nets from Kamloops (II-D-71 and II-D-78), collected by Harlen Smith, 1918. These small nets are without frames; one is described as a dip net and the other as a "triangular net."

### *Toggle Spear*

The toggle spear, also called a harpoon, is a tool traditionally used in places where one could spear the salmon, normally at a weir or other type of barricade. Secwepemc used this tool for fishing from canoes at night. They would light a torch and hold it above the water attracting fish, such as lake trout and Chinook salmon. When the fish came within range, the fisherman would strike at them, hard and fast. Such a tool could be used while fishing through the ice in winter or from rocks in shallow streams. I did not witness this tool being used nor did I hear people speak of using toggle spears any longer.

Toggle spear handles were made of ash that had been seasoned and sometimes burned slightly to give it additional strength. Two prongs were joined with twine so that they would be strong and secure. The toggle spears were made of sharpened antler tips that have been shaped to fit snugly on the end of the prongs. These were secured to the handle with twine. When the fisherman struck a salmon with the toggle spear, its tip would enter the flesh and stay there. Teit described how fish were speared:

*The spear, which has a handle fifteen feet or more in length, consists of two long prongs, each of which has a barb pointing inward fastened at the end. The spear-head is attached loosely with a line to the handle. When a fish is struck, the barbed points become detached from the spear-head. The fish, with the detached barbed*

*points in its body, is then hauled ashore by means of the line (1900:251).*

The American Museum of Natural History has several toggle spears collected by James Teit. They are all made in the traditional manner, with either bone or metal barbs. Artifact 16/1050 is a two-pronged spear made of wood, bone, string, sinew, rope and pitch; the two tips are attached with a thin Indian hemp rope. The handle has been cut short, probably to facilitate shipping.

### *Leister*

The leister or pronged spear (Figure 3) was traditionally made with a fir handle and bone spear points lashed or attached to the prongs. They were used for fishing trout and steelhead and were made in varying sizes depending on their intended use. Like the spear, the leister was used in places where there was some sort of barricade or where the water was fairly shallow. Visibility is an important factor in using this tool. "When the spear was thrust straight down, hitting the back of the fish, the outer prongs spread slightly apart and then settled in either side of the fish while the centre prong impaled the spine" (Kennedy and Bouchard 1992:287). Spear fishing salmon continues at some river sites (for example Spences Bridge) and in lakes for trout.

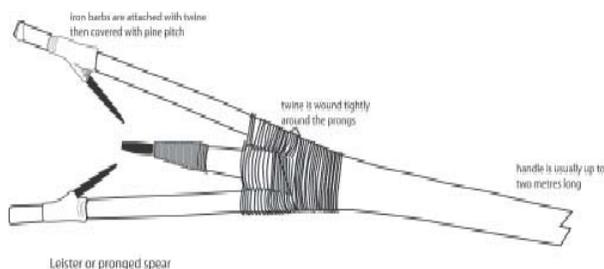


Figure 3. Diagram of the leister (pronged spear)

The American Museum of Natural History collection included several leisters. Artifact 16/9325 is a Secwepemc fish spear, 40" long; one of its outside prongs is missing. Artifact 16/9324 is also a Secwepemc fish spear, the handle of which appears to have been broken. According to the artifact record, it was originally 55" long. It has metal barbs replacing the traditional bone. These may have been made with cut nails or other small pieces of metal. This type of leister is called a *mineep* (various spellings). Since the 1930s, the Secwepemc have used pitchforks for making *mineeps*; these leisters are used today and their production has become a unique Secwepemc craft. I purchased a pitchfork leister for the CMC collection in 1999 though this example is a model rather than a

functioning tool and the handle is shorter than it would be normally.

An unusual example of a Stl'atl'imx fish spear is one with a detachable head (16/5951). It is 91" long. It is made of wood and Indian hemp twine with metal barbs. The artifact information at the AMNH is not detailed and other authors have not discussed this type of fishing tool. The one Nlaka'pamux fish spear (16/1049) is 52" long and is made with bone points. I have not examined the AMNH collection first hand. Therefore, it is difficult to determine if the objects were made specifically for the museum or whether they had been used in actual fishing activities. One Secwepemc mineep exhibited in the Kamloops museum is in very good condition and had obviously been used for fishing. The handle had been burned off but as it is a found object, there is no way to know if it had been discarded or lost.

### *Gaff*

According to Teit (1906), gaff hooks were not used much before the availability of iron. A variation of the gaff hook was made using bone but it was not as strong as its iron counterpart. The gaff is made from a piece of iron that has been bent and sharpened. It is lashed on to a fir sapling handle that has been well seasoned so that it is not heavy. Historically, lashing would have been made of Indian hemp twine but today baling wire is commonly used. The handle may also be scorched or slightly burnt which makes the wood stronger.

People required specific conditions in order to fish with a gaff. Near Deadman's Creek, for example, there is a rocky place that is ideal as a fishing station if the water is not too high. Men stand on the rocks here, holding the gaff in the water. Ideally, a few white rocks are placed on the river bottom to make it is easier to see fish as they swam over the gaff. The gaff may have a handle as long as 3.5 metres. To hold it steady, a man braces it with his shoulders and hands. Strength is needed to keep the gaff steady against the current; in clear water, fish can see the pole and will avoid it if it moves. When a fish arrives and is in an ideal position, the fisherman must quickly step backwards with the gaff still firmly braced. This requires a tremendous amount of skill, experience and strength. The fisherman must continue to step backward until he has hauled the salmon ashore.

### *Gill nets*

The gill net is one artifact in common use today. In the area along the Fraser River around Sawmill Creek, the water is fairly slow moving

and calm. Here people can use gill nets and fish from their boats. The people I met were simply "setting" a net that had a lead line and floaters attached. They let out the net, waited a while, then retrieved it; they caught between five and fifteen salmon with each set.

At Bridge River, there is a small bay over which the Narcisse<sup>7</sup> family has stretched several long nylon ropes. These are attached to spikes hammered into the rock. A gill net is attached to one of these ropes and with a series of pulleys, is hauled out into the water. The net has a lead line attached so it sinks. This particular bay attracts salmon as it provides a resting place out of the strong current. The water is turbid so fish are easily caught in the net. Once the net has several salmon in it, it is hauled ashore and the fish removed.

Kennedy and Bouchard (1992) suggest that gill nets were introduced to the Stl'atl'imx after contact and that they were suspended over the river by a pole or cable (1992:285). Teit (1906) mentions gill nets were set in lakes while dip nets were used in rivers. He collected at least two gill nets; one is at the Peabody Harvard Museum (86455) and measures nearly sixty feet long and made of Indian hemp. He collected stone sinkers (86457) and tule floats (86456) as well. A Nlaka'pamux net at the AMNH (16/9126) measures over 32 feet. Aboriginal people tend to purchase commercial nets today and have done so for a long time.

### *Fish hooks*

Fishhooks were not used for salmon fishing. They were used for fishing fresh water species such as suckers, trout, whitefish, and peamouth. Some of the larger fishhooks (such as AMNH16/5966 and 16/5952) are made with metal barbs. The Secwepemc used fishhooks for fishing through the ice. The early examples are made from bone lashed to a piece of wood (AMNH NAE/0124; 16/1028; 16/4834). The CMC has four Nlaka'pamux fishhooks collected by Teit in 1915. Two hooks are made from two small slivers of bone lashed together at about a 70° angle with Indian hemp (II-C-245a and b). Another hook is made from deer bone (II-C-416); the shank and barb are lashed together with sinew. The fourth hook is made from hawthorne barbs lashed together (II-C-245c). Everyone buys commercially made fish hooks today.

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<sup>7</sup> Arnie Narcisse is Stl'atl'imx fishes at Bridge River with his family.

## CONCLUSION

It is ironic that despite everything that has impacted on Aboriginal fishing in the Plateau region, a description of fishing on the Fraser River in 1899 would be so similar to observations of fishing in 1999. Fishing remains intrinsic to Interior Salish people's cultural, social and economic lives. Fishing tools collected by James Teit at the turn of the twentieth century are unique now because of the materials used to make them, not for their form and function. Colonial activities and interests have encroached on fishing activity over the last 150 years. Some impacts were brought by commercial interests, who demanded a share of the fish. Immigrant populations and their conflicting use of the land and water impinged upon Aboriginal fishing practices. Perhaps the greatest intrusion was government legislation which attempted to legislate Aboriginal people's right to fish, resulting in years of threat and intimidation. Throughout all this time, Nlaka'pamux, Stl'atl'imx and Secwepemc people held fast to their fishing sites and tools.

It is important for museums to resist the urge to view Aboriginal people in the ethnographic past. Fortunately, in some regions, traditional practices remain despite modern pressures and impediments. This is the situation with Plateau fishing. To develop a current understanding of Plateau fishing technology, it has been necessary to collect artifacts made from modern materials and to photograph current fishing practices. However, descriptions of fishing by people such as Teit and Dally written over one hundred years ago, along with the artifacts and photographs collected, differ little from those I took in 1999.

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## QUESTIONS

*Frank Crabbe:* How does the night fishing work?

*Nichollette Prince:* In some of the lakes people fished at night with a lamp. Fish come to the surface, attracted by the lamp. In the 1800s lamps were made of wood and had sharpened nails and barbs. Since the turn of the century, most of them are modified pitchforks and easier to maintain. After the 1930s they became the most typical lights. Some people fish off the bank with them.

*Arnie Narcisse:* This also takes place in the Thompson River. They use pots in front of the boat. People will drift miles down the river doing this. It is very dangerous.

*Nichollette Prince*: They have gas light as well. This type of fishing requires skill, it is not something that you do for fun. People develop the skill and become well known for fishing that way. The reason why I wanted to do this research is to find out why people fished the way they did.