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Paper topic:

Trading across time and space: Culture along the North American
"Grease Trails" from a European perspective

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Oolichan: The “rich fish”, namegiver of a country

The Northwest Coast of America has a rich and complex history with fish. Especially one remarkable species, though constantly overseen, has shaped the region as few others have. *Thaleichthys pacificus* is its scientific name, deriving from Greek *thaleia* meaning rich, *ichthys* meaning fish, and *pacificus* meaning of the Pacific. Common names are smelt, oilfish, and "candlefish".¹ Oolichan is the name used by the Native tribes.

The oolichan, this modest little member of the 12 existing species of smelt was likely the namesake for Oregon country, a territory formerly stretching from the Columbia River in the south up to the 54th latitude in the north, reaching into regions today referred to as Alaska [see appendix, Fig.3].²

The common trade language of the many different Northwest tribes, the so-called Chinook Jargon, included oolichan due to its high value placed on the grease by many tribes. The different Native tribes of the Northwest Coast, however, do not pronounce the word Oolichan exactly the same way. In south-east Alaska, for instance, the Tlingit say “hooligan.” On Vancouver Island the Kwakwaka’wakw say “Oolichan.” Along the Fraser River the Cowitchan say “ulluchan.” Along the Columbia River, the Chinook say “ulken.” The Western Cree who use an R sound in place of an L would have said “ourigan.”³ It was probably this Native word which, adopted from the Native traders, was misspelled by first explorers like Jonathan Carver⁴ and accordingly turned into Oregon.

This theory is also underlined when having a look at the congruence of the historical boundaries of Oregon country and the natural habitat of the oolichan fish. Historically, the range of the Oolichan has corresponded roughly to that of the coastal temperate rainforest, extending from northern California to Alaska [see appendix Fig.1&2].⁵

There is still limited understanding of the biology and life history of the Oolichan. Despite abundant Traditional Ecological Knowledge, compared to other fish species in BC, there have been relatively few genuine 'scientific' papers on Oolichans. Fishing techniques among American Indians show the influence of a sophisticated adaptive understanding of the fishes' lives and environment. Particularly in the Northwest Coastal region of North America fishing was the economic mainstay of many tribes. For thousands of years, the Oolichan was central to the culture of Northwest Coastal tribes. A Haisla elder explained:

¹ The name candlefish was given the fish because when dried, it retains enough oil to burn like a candle.

² Cheri Brooks, *Mighty Oolichan*, Oregon Quarterly Winter 2002, p. 28.

³ Ibid, p.29.

⁴ Jonathan Carver was the first who mentioned the “River Oregon” in his best-selling *Travels through the Interior Parts of North America*, published in 1778, referring to the Fraser River in B.C.. He probably had contact with some Western Cree and allied Assiniboine traders at the Great Lakes who told of the “River Ourigan” that led to the Pacific and who had previously been to the far Northwest across the Rockies to trade and to raid, being well acquainted with the region and its river systems.

⁵ In BC 33 different rivers or streams have been documented as Oolichan spawning sites, but only 13 appear to have a record of continuous, annual runs. The total number of sustained, regular runs is uncertain, but it may be as few as 30 or 40 in the world, and almost certainly fewer than 100.

The oolichan is food for the soul. It is part of Haisla culture. It has intrinsic values in helping us to define who we are. When we define ourselves, we closely link ourselves to our diet, and oolichan is a major part of our diet and our cultural identification.⁶

The very life of the Native peoples depended upon the Oolichan. One of the Sm'algayax names for Oolichan is "hali'mootk" and means savior fish. Oolichans are fat beyond all description after they spent three or four years at sea, harvesting the abundance of the ocean manufacturing their oils, before the urge to return home overcomes them.⁷ The oil makes this return possible and fruitful. Oil fuels their migration home against the power of strong rivers like the Columbia and is the source of energy that smelt pack into their eggs and milt for reproduction.

Like salmon, Oolichan play an important role in the Pacific coast ecosystem. As part of the food chain Oolichan are prey or food for other animals. Therefore, with the masses of oolichan come its predators: the sea lions, seals, porpoises, orca whales, eagles and flocks of gulls. Oolichan was the first resource available for harvest after the long winter months, even arriving before the salmon, often before the ice melts, giving life, saving people from starvation. Even a prolonged delay in the arrival of the fish caused untold suffering.⁸ Charles Dickens in 1865 wrote about the appearance of Oolichan in spring:

"It is by no mere chance that myriads of small fish in obedience to a wondrous instinct, annually visit the northern seas, containing within themselves all the elements necessary for supplying light and heat and life to the poor savage who, but for this supply, must perish in the bitter cold of the long dreary winter."⁹

The importance of Oolichan therefore cannot be under stated, it is a cultural icon throughout its region and very present in the culture of the Northwest Coast and its development.

Fish trails crisscrossing the country

The modern development of western Canada has unfolded over the last 150 years on structures, which were already there for several thousands of years- the pre-existing trail network used by the Native population. Long before Alexander Mackenzie was guided by First Nations people in search of the elusive Northwest Passage in 1793, and the American explorers Meriwether Lewis and William Clark arrived at the mouth of the Chiawana (Columbia River) in 1805, the Northwest Coast was crisscrossed with elaborate trails. Because these trails were commonly used to transport Oolichan grease, they are now referred to as "grease trails." For thousands of years, First Nations traders followed well-trodden "grease trails," usually the easiest routes across plateaus, highlands and over challenging mountains far into the western interior, back-packing heavy boxes of valuable Oolichan grease, held in place by cedar rope "tump-lines," attached to

⁶ Morris Amos, Director of Natural resources Kitamaat Village Council.

⁷ The Oolichan, like salmon, is an anadromous species, leaving the ocean to ascend rivers and streams to spawn. Adults enter fresh water and spawn from February to mid-May.

⁸ Harrington, Lyn, "On the trail of the candlefish" in *The Beaver*, March 1953. p. 57.

⁹ Charles Dickens, "The lamp fish," in *All Year Round*, March 25, 1865.

headbands. The trails, operating on a relay system, covered a geographic area from what is now the Yukon Territories in Canada south to what is now northern California in the United States and as far east as central Montana and Alberta. to interior peoples like the Babine, Carrier and other Athabaskans [see appendix Fig.4].

Oolichan grease trails: the basis for contemporary transportation infrastructure

The first explorers of BC didn't have topographical maps that are in existence today. For them it was natural to follow the ancient trading routes that did exist, used by the First Nation's People who showed the routes to the early explorers, guided them along and shared the trails with them. Susan Moir Allison, wife of John Fall Allison, recalls one day in 1860 when she was berry picking on the Hope Similkameen trail and unexpectedly encountered a fur brigade nearing Hope from the east. She describes in her memoirs:

.... I never met him again but was told he was a Hudson's Bay Company officer in charge of the Colville train and that he was never more surprised in his life than to see a white girl on the trail—he had lived so long without seeing anyone except Indians.¹⁰

The first Europeans to discover the Native routes on a larger scale in the period between 1821 and 1846 in the central interior of British Columbia were the fur brigades eager to find beaver, so coveted in Europe during that time. They turned the grease trails into fur brigade trails.

The second party, which explored the grease trails were all seasoned prospectors whose main purpose of the expedition was not to look for the golden grease but to find the most precious, yellowish metal sought during the gold rush which was hoped to develop British Columbia's economy, stimulating settlers to stream into the region. Routes in British Columbia were needed to guarantee access for the miners clamouring to get up the Fraser and Thompson to pan the river's gravel.

Later many of those routes were overlaid by the voracious appetite of the railways, which were consuming all possible avenues through B.C.'s mountains during the late 19th century era of railway euphoria. As strategic points of high importance the most desired lands by incoming developers were the regions where the old grease trails and trading posts were located. Settlers surveyed and set out townsites and rights-of-way for the already established roads. This was all part of an ongoing effort to fully define and legalise the British presence in the area of B.C., due to the threat of immediate absorption by the great overland migrations of settlers to Oregon and California from the eastern states of the American Union. The Native presence was never considered, land claims were not negotiated.

Nevertheless, the history story of the grease trails continued, as it relates to the fur trading, the gold rush, ranching, guiding, fishing and forestry in this region. Today we travel the grease Highways every day on taking for granted roads, sealed with asphalt and concrete, which give life to mass transportation and commerce [see appendix fig.7,8,9].

¹⁰ Robert Harvey, "The Coast Connection," Oolichan Books, March 1994, p.26.

The Trade

Oolichan oil has for untold centuries been one of the most valuable commodities and main article of a vigorous northeastern Pacific coast trade. The trade in this oil was very extensive. So valued was this “golden grease” that it was shipped over trails on strong human backs or on travois attached to dogs running from the coast far into the interior to Indian nations eager to exchange pelts, baskets, pemmican, bitterroot, dried berries, dried meat or leather for clothing. Horses did not become available to support trade until the late 1700s.

The grease trail on the Nass River in B.C.

There are several elaborate grease trails in B.C., the best known of which are those up the Stickine River and along the Bella Coola Valley.

These were not specifically grease trails, although they served the purpose: they were strictly speaking trade routes linking the Coast with the abundant resources of the Interior. The trail on the Upper Nass is the only one which served exclusively the purpose of trading the Oolichan grease. It is *the* Grease Trail.

This trail lies through a beautiful and fertile country, first following the banks of the Cranberry River, then leaving it for the northern shore of Kitwancool Lake, which it skirts, and then on to the Skeena. It has a long and interesting history. Natives from the far interior have traveled it for centuries bringing with them furs for trading the grease from the far-famed fishery on the lower Nass.

The traditional grounds of the Nisga'a on the Nass River

The estuary of the Nass in B.C. was the most important fishing area on the Northwest Coast, with the possible exception of the Fraser delta. For more than 10,000 years, tribes have thrived in this land. The Nisga'a on the Nass¹¹ catch tonnes of the tiny fish every year at the end of the winter before the river ice breaks up at *Tsim-golth-l'angsin*, Fishery Bay. It is the oldest and most remarkable fisheries in the world and was a place of great strategic importance.¹² The Oolichans found there are superior in size and quality to any other in the world.

In earlier times, hungry after long winters, the Nisga'a shared their oolichan grounds with other tribes with who, through intermarriage and linguistic relations, they were on good terms like Tlingit, Tsimshian, and Gtxsan people. They used to gather at Fishery Bay for two to four weeks to catch and process the Oolichan. Those Native tribes developed their diverse traditions around the harvesting, processing and distribution of this small but important fish. The annual cycle of food gathering starts with Oolichan every spring on the Nass (as well as many other rivers in Northern B.C. and Alaska). During that time, Natives came by the grease trails overland from points on the Upper Skeena and far beyond. They came when the snow was still deep, traveling on snow-

¹¹ The Nisga'a's name for the river is Lisshims. The Tlingit of Aalska named the river Nass which means “Food Depot”, a tribute to the abundance of Oolichan fish.

¹² Henry A. Collison, “The Oolichan Fishery”, in *British Columbia Quarterly*, vol.V, no.1, January 1941, p. 27.

shoes and hauling their belongings on sleighs. When they reached the Nass they could still travel on the ice for a distance of nearly 80 kilometers, to the fishery.¹³ Some tribes held special fishing rights and were allowed to have a permanent encampment of their own near to the Oolichan fishing ground. Men and women from the Kwakwaka'wakw nation would travel 250 miles by canoe to collect the Oolichan there. The Natives from the Interior brought furs with which to pay the Nisga'a for the right to fish and also for the use of their nets, equipment, and for shelter during the season. These furs were principally marmot and rabbit skins, generally sewn together to form rugs for bed-covers or robes. Not infrequently, when furs were scarce they handed over their children in barter for food. These were in turn handed over by the Nisga'a to the Haida as part payment for their canoes, of which the Haida were master-builders.

The presence of some tribes from the Coast at the valuable fishing grounds, especially the intrusion of the Haida, with who the Nisga'a were constantly at loggerheads, was often bitterly resented and resisted.¹⁴ The Haida made a quick trip to the huge runs on the Nass River toward the end of the season, bringing with them plentiful supplies of dried seafoods, which they exchanged for dried oolichans and grease which were not available on Haida Gwaii.

As soon as the oolichan, clad in glittering silver armour, arrived on the coasts of B.C., people in canoes gathered skillfully large quantities of the living silver with their spiked sticks, "Kidah", and rakes, made of bone, usually during night time. Nowadays, dip nets, conical nets and seine nets are used. Their catch was as it is now eaten fresh, or is dried, smoked, salted, boiled, broiled or fried by the women. Much of it is rendered into precious oolichan grease, the most important product produced in northern regions. The fish were placed in old canoes or large wooden vessels, and, after letting them ripen for two weeks, boiled with red-hot stones. Rocks are used to purify the oil after it has been skimmed off the cooking. (The process of drying and smoking the Oolichan, as well as extracting its oil, was beautifully described and illustrated by Hillary Stewart in "Indian Fishing."¹⁵ An excellent account of Indian fishing for Oolichan was written by John Keast Lord in 1866.¹⁶)

In the event of the ice leaving the river before the Native fishermen were ready to return, there were always canoes to be hired for a consideration. But, as a rule they left the grease in their fishing lodges with very little to hamper their movements. Then later on in the season they came in their canoes down the Skeena and up the coast to the Nass and loaded the grease into their large canoes. Some of these could carry 4000 pounds. Families would club together to navigate them.¹⁷

Fishery Bay, formerly only accessible by boat, has been connected by road recently this year. The grease trail leading to the Skeena River maintained throughout the years is obliterated, more and more so after the Nisga's settled their land claims. They do not want Euroamericans any more to come into their territory to pick mushrooms they

¹³ Ibid, p. 28.

¹⁴ Ibid, p.27

¹⁵ Hillary Stewart. 1977. Indian Fishing. Early Methods on the Northwest Coast. University of Washington Press. Seattle, Washington.

¹⁶ John Keast Lord. 1866. The Naturalist in Vancouver Island and British Columbia. Volume 1. Richard Bentley, New Burlington Street, publisher. London. Pages 87-96.

¹⁷ Henry A. Collison, "The Oolichan Fishery", in British Columbia Quarterly, vol.V, no.1, January 1941, p. 27.

told me. Recently the bridge over the Cranberry River, south of Cranberry Junction, formerly the most important trading place in the region, where the trail leaves the Nass for the Skeena, was destroyed and never replaced.

The importance of the Oolichan for First Nations' culture

The catching, subsequent processing and distribution of Oolichan grease was an integral part and important unifying force of coastal Indian nations' culture and health. Descendants of those tribes who were continually at each other's throats, during Oolichan fishing season met as friends. The old feuds were forgotten. The monotony of life was relieved by feast and entertainment. It is a season of mutual helpfulness and co-operation. It is a miniature of what the world should and could be today. There is plenty for all. There is no needless waste. The Native fishermen catch enough for their own requirements and a little more, which they can barter for their foods.

One box of grease could be bartered for four blankets, two beaver skins, or two boxes of dried halibut. Two boxes of grease had the value of one canoe. The price paid for a woman slave might be two or three boxes of grease.¹⁸ (There are no more slaves among the Kitimat; all were returned to their native lands in before the turn of the century.¹⁹)

There being no butter, Oolichan oil was used instead. The Haisla Indians of Northern British Columbia considered it the tastiest product of the sea.²⁰ Native Americans throughout the region have traditionally used the Oolichan grease for almost everything. Lewis called Oolichan grease the "Swiss army knife" of trade goods. Once extracted, the valuable oil was used as salve, sauce, for seasoning, preserving food, source for vitamins A, E and C, as medicine to treat colds and the flu, laxative, lamp oil, leather-tanner, and for trading. It is also believed to clean the human body spiritually.

Because of its timely arrival and high nutritional value it provided huge wealth and power to the people of the North Coast. Villages were built on strategic places for harvesting and trading the fish grease. In order to guard their wealth villages along the Skeena and Nass Rivers formed into organized chieftainships. Fortifications, like the Kitwanga Fort, were built along the trade routes in the early 1700s. Whole villages were built on rocky points of land or steep hills with an eye to prevention of surprise from concealed foes and to collect tolls from the traders passing through.

Around the Oolichan fishing and along the trails, traditions and rites developed. The man who caught the first Oolichan for example gave it to the oldest child of his eldest brother, who gave gifts in return. Sometimes in winter as a way to show to honored guests that they were welcome dried Oolichan were thrown on the fire to cheer and warm the fresh arrivals. Occasionally, during a potlatch ceremony, a native would throw a box of Oolichan grease into a fire, causing brilliant flames to leap above the heads of the

18 Ivan A. Lopatin. 1945. Social Life and Religion of the Indians in Kitimat, British Columbia. The University of Southern California Social Science Series. Number 26. The University of Southern California Press, Los Angeles, California. Page 90.

¹⁹ Ibid, page 30.

²⁰ Ibid, page 15.

amazed onlookers. The host of the potlatch ordered this wanton destruction to demonstrate that it was nothing for a man of his means to burn his property.²¹

As Europeans began to settle in British Columbia, they also dealt in the trade of precious Oolichan oil.²² Some was shipped to Mother England and used as a medicinal oil (mainly a substitute for cod liver oil).²³ A large oil export market, however, never materialized, because Oolichan oil found such ready sale among the local Indians. Also today there is a local demand for the oil, which is sold on the black market.²⁴

The cultural significance of the Oolichan today

Also today the cultural importance of Oolichan is the same as it has been for thousands of years throughout its range. The Klinaklini Oolichan Grease (Tl'ina gila) distribution via potlatch e.g. continues to this day. Grease continues to be a trade item in the central and northern coasts.

Fishing was, and still is, the time when tribes exchanged information and stories were told and songs sung. It is an event where traditional food preparation and processing knowledge is transferred to younger generations through hands on experience.

For First Nations, traditional food (food harvested from the local environment) has a central role in terms of nutritional, socioeconomic and cultural significance. Traditional food brings about improved diet quality as shown by the lower fat and saturated fat content of the diet when traditional food is consumed. Dietary lipids are a concentrated source of energy, act as carriers of fat-soluble vitamins, and are a source of essential fatty acids (polyunsaturated fatty acids that are essential to health but cannot be synthesized by the human body). Oolichan contain the highest n-3 polyunsaturated fatty acids which are not easily found in imported foods and which have been associated with a decreased incidence of thrombotic and ischaemic disease. Traditional food is also an important source of dietary energy, protein, iron and zinc. The increased physical activity associated with traditional food harvest, and the role of the traditional food system in cultural and social support systems are also likely to contribute to health.

Aboriginal identity and the collective sense of well-being is based on subsistence as a social system and as an activity, as well as a dietary staple. The loss of confidence in Native food undermines confidence in identity and society.

Spreading diseases along the trade routes

The transportation systems of any region are considered crucial to its ability to develop in terms of communication, economic growth, and human settlement. Those transportation systems, however, can also have very negative effects. Via the network of grease trails

²¹ Ibid. Page 36.

²² John Lawson Hart and J. Laurence McHugh. 1944. Bulletin of the Fisheries Research Board of Canada. Volume 64. Page 12.

²³ Nature. 1881. Volume 24, May 12, 1881. Page 39.

²⁴ John Lawson Hart and J. Laurence McHugh. 1944. Bulletin of the Fisheries Research Board of Canada. Volume 64. Page 12.

arrived, with the appearance of the European explorers, devastating diseases destroying whole Native cultures [see appendix fig.5&6].

First European contact on the Northwest Coast of America is believed to have occurred around 1792 via sailboat up the Douglas Channel along the waterways. A combination of powerful European weaponry and lack of resistance by the Northwest Coast tribes to foreign diseases such as smallpox, Spanish influenza, tuberculosis and venereal disease, resulted in a dramatic reduction in the population of Pacific Northwest native communities.

The second devastating epidemic arrived later along the grease trails via the overland routes, spreading slowly out into the communities according to the time and route of travel from east to west. In the 1870s e.g. it arrived in Haisla territory and a large avalanche wiped out the remaining Misk'usa village in the Kitlope, forcing tribes to amalgamate and settle on the Kemano River.

Contemporary problems

Following the trails of the Oolichan nowadays reveals the people's stories of loss, as well as preservation of their culture, their connection to the past, the land and their natural environment in relationship to contemporary issues facing humanity today. Like the problems of overfishing, pollution of waters, the risks of contaminated foods from herbicides, pesticides and heavy metals in Oolichan grease and the destruction of biodiversity.

Oolichan which swam into the turbulent waters of Northwest Coast history and became a local hero – a symbol of plenty, recently, like a ghost, has vanished in many rivers. Like the great run of Columbia River smelt -- once the largest run of Oolichan in the world.²⁵ Since 1993, the returns to the Columbia River and its tributaries have been dismally low, yielding an average commercial harvest of just 90 tons. During 1940-1992, the average catch was a whopping 1,076 tons.²⁶ In the past decade puzzling variations in Oolichan spawning runs have been noted, ranging from a complete disappearance in California, to dramatic seasonal drops in formally stable rivers such as the Fraser. The explanation for the decline is uncertain but could be a combination of broad-scale changes in ocean conditions or commercial fish bycatch and local effects pollution such as overfishing or physical habitat degradation.

The Nass and Skeena River

The Metlakatla, Lax K'walaams, Kitsumkalum, and Kitselas Bands harvest Oolichan on Skeena River. The Skeena is the second largest river in BC. The River has been impacted by increased sedimentation and the building of the highway from Terrace to Prince Rupert. The Highway along the Skeena was built directly on spawning grounds and likely impacted the run. Logging activity in the Skeena watershed has also increased flooding. The increased sedimentation loading as a result of logging activity is directly observed in

²⁵ Eulachon Research Council. 1998. March 1998 Meeting Summary Notes. Canada Department of Fisheries and Oceans, Pacific Biological Station, Nanaimo, B.C. V9R 5K6. Page 5.

²⁶ Washington Department of Fish and Wildlife and Oregon Department of Fish and Wildlife. 1996. Status Report. Columbia River Fish Runs and Fisheries, 1938-1995. Table 71. Pages 111-112.

the spawning locations, as eggs do not adhere to the substrate as effectively in the past. Log transport has been a documented contentious issue in the Skeena since at least the 1950s. Road salt used during the winter and then plowed into the river is a problem. Herbicide use on railroads also has a direct impact. Also mining upriver may cause impacts.

The Black River Region

At Bella Coola, there have been no returns since 1998. Although field conditions were not conducive to carrying out the planned study at Bella Coola for 2002, it is suspected there was no run.

The situation in Haisla territory

Haisla, “people who live at the river mouth,” have traditionally occupied and used just over 5000 sq. miles of land and waterways, (approximately 4million acres). The Canadian Federal government set aside 1640 acres of land for the Haisla, as reserve land, starting in 1890. The land is currently held in trust by Canada for the Haisla people.

The reserves that have been set aside for the Haisla Nation are very small and scattered throughout Haisla Traditional Territory. In 1905 the Indian Agent working for the Canadian Federal government wrote about the reserves assigned to the Haisla Nation. “The reserves of this band are all situated in the Douglas Channel and are the poorest reserves and of smaller dimensions according to the size of the band than any other in the agency.”

The Haisla people have a history dating back thousands of years in a territory for which they have never surrendered their aboriginal title. Evidence of their long-time presence exists in the forests in the form of archaeological discoveries of former villages and culturally-modified cedar and spruce trees where the bark was stripped for its fibres and used in weaving baskets, rope and clothing. Ancient gashes have also been found in old growth trees which might indicate points of sap collection for medicine or canoe sealer. Evident testimony of long Haisla presence also is one of the largest existing networks of former grease trails. Kitamaat Village, the headquarters of the Haisla Nation, for example, today, is reached by Highway 37, an ancient grease trail.²⁷

Historically five of approximately 15 B.C. eulachon-bearing rivers were found in Haisla territory: Kitimat, Kildala, Kemano, Kowesas, and Kitlope.²⁸ Every spring Haisla family groups would travel to the Rivers for oolichan (zaxwen -pronounced: dzaquen) fishing. Haisla people have been oolichan fishing “waa-mis” for thousands and thousands of years. They have become experts at making pure white grease and use Oolichan grease for trade with neighboring Villages. The quality of the Haisla grease is well known up and down BC’s Coast, and has become a very valuable commodity.

Since the 1950s, Oolichan harvesting in many of the Haisla rivers has ceased due to off-flavoured flesh and grease imparted by municipal sewage treatment and/or industrial effluent discharges into the river.²⁹ The Kemano River is affected by the hydroelectric operations of Alcan’s aluminum smelter. Also here is Methanex Chemical

²⁷ Cheryl Coull, “Aboriginal B.C.” Whitecap Books, Vancouver, 1996, p. 173.

²⁸ Hart and McHugh, 1994; DFO, 1999.

²⁹ Eurocan Pulp and Paper Co.: Kitimat River Eulachon Run Strength: 1991-2000.

Corporation, and Eurocan's pulp and paper mill. "The oily fish," says elder Morris Amos, "have picked up the pulp mill taste...."

In 1994, the Government of British Columbia, at the urging of the Haisla First Nation, and conservationists from around the world, announced the protection of the Kitlope Watershed "Hushuwashdu." The Greater Kitlope Ecosystem is the only large area within Haisla territory which remains in pristine condition. Preserved forever from industrial development are the 800,000 acres of the largest remaining coastal temperate rainforest in the world, the only site left for the Haisla to harvest the Oolichan.

Oolichan trails and tourism

In 1793 Alexander Mackenzie, Canada's Lewis and Clark, in search of the elusive Northwest Passage was the first European to cross the Rocky Mountains and view the western seas from the shores of northwestern North America, preceding the more widely known Lewis and Clark expedition by 12 years. Guided by First Nations people he followed pre-existing grease trails like the Nuxalk-Carrier Grease Trail. This travel route was known as the "Great Road" to the Nuxalk and Carrier people. It spans an area traditionally occupied by three culturally distinct Native groups: the Nuxalk people of the Bella Coola Valley, an enclave of the Salishan linguistic group; the Heiltsuk people of Waglisla (Bella Bella) and the Outer Coast, members of the Wakashan linguistic group; and the Southern Carrier people of the Interior Plateau, members of the Athabaskan linguistic group.

In 1985 the trail was designated as the first heritage trail in British Columbia under the Heritage Conservation Act and as a forest recreation trail under the Forest Act, in 1987. Now the Nuxalk-Carrier Grease Trail is known as the Alexander Mackenzie Heritage Trail, which stretches a full 264 miles (420 km) from the mouth of the West Road (Blackwater) River between Prince George and Quesnel to the Sir Alexander Mackenzie Provincial Park.

The trail includes local wagon roads, provincial highways, forest access roads, rivers, and coastal waterways. Approximately 186 miles (300 km) of this corridor is recreational trail, and about 62 miles (100 km) is well-preserved aboriginal footpath.



This important historic trail tells the story of the aboriginal people dating back 6000 years. There are some 120 recorder prehistoric archaeological sites near the trail and 260 within a mile or two.

The original grease trails are promoted to bring the traveler on a journey into an older world, crowded with spirits and supernatural beings like Txamsen, the giant, Natmuqcin, and the Transformers, Xexa:ls and into the lives of the descendants of the

grease trails original travelers. There is mystery surrounding many of them. One of the few remaining signs of native passage today on the Moss Lake Oolichan Trail on Vancouver Island e.g. are culturally modified trees depicting human faces,³⁰ or Indian petroglyphs and pictographs which can still be found painted on the rocks. In other regions old bridges and forts where tolls were collected can still be seen intriguing tourists especially from Europe to go and hike them.

Conclusion

For at least 10 thousand years aboriginal societies flourished. Their survival was bond to their ability to perceive and live in accordance with the laws of nature. Stories are told and retold of great floods, volcanic eruptions, salmon runs that failed to appear. These were the lessons, say the elders, because people didn't pay attention to what they were doing. Now, as the fisheries and forests face an uncertain future, their lessons have a relevance to everyone. The story of the grease trails conveys a message important for all of humankind.

Every society has developed parts of their culture around fatty acids for food and medicine, essential to survive. Whether it is garum, a fish sauce consumed in ancient Rome or the marmot oil used in Nepal, the underlying principles are alike.

The trade routes on the Northwest Coast of America were similar in function and importance to the ancient "Salzstrasse" (the ancient salt trail in Germany) used by the indigenous peoples of Europe to transport and trade their "white gold" (as salt was called there in the 14th century), important primarily for the conservation of herring fish in the northern parts, from the North Sea into the interior.

The reality of the grease trails uncloaks inevitably the Indian portion of American history and makes "historic nationalism," the tendency to write a national history that promotes European and American interests obsolete.

Euroamericans should become aware of the original sharing of culture and similarities on which their basic contemporary transportation structures are built and realize the indigenous knowledge, nowadays oftentimes made invisible, which underlies many aspects of everyday life.

³⁰ The significance of these two trees, one carving facing north and the other facing south, has been long lost but it is believed that they marked the boundary between the two tribal groups. Perhaps a special ceremony was performed between the trees before one tribe moved into the next tribe's territory.

Appendix

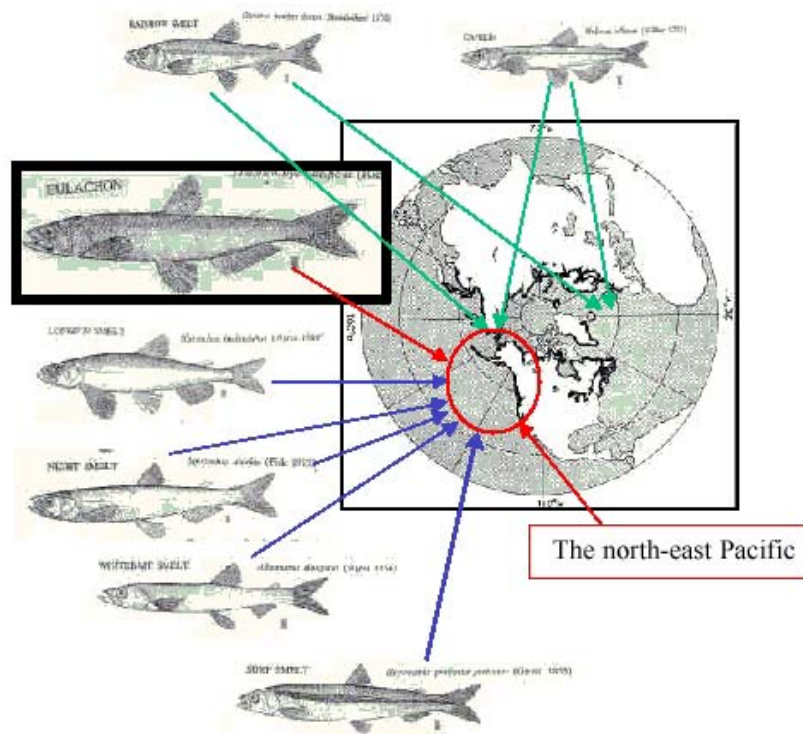


Fig. 1. A drawing of an eulachon, showing the global distribution and some representatives of some other osmerids. The distinctive features of eulachons include the partially concentric rings on the operculum, the long anal fin and low gill raker number. Distribution of smelts (Osmeridae). The drawings of smelt are adapted from Hart (1973).

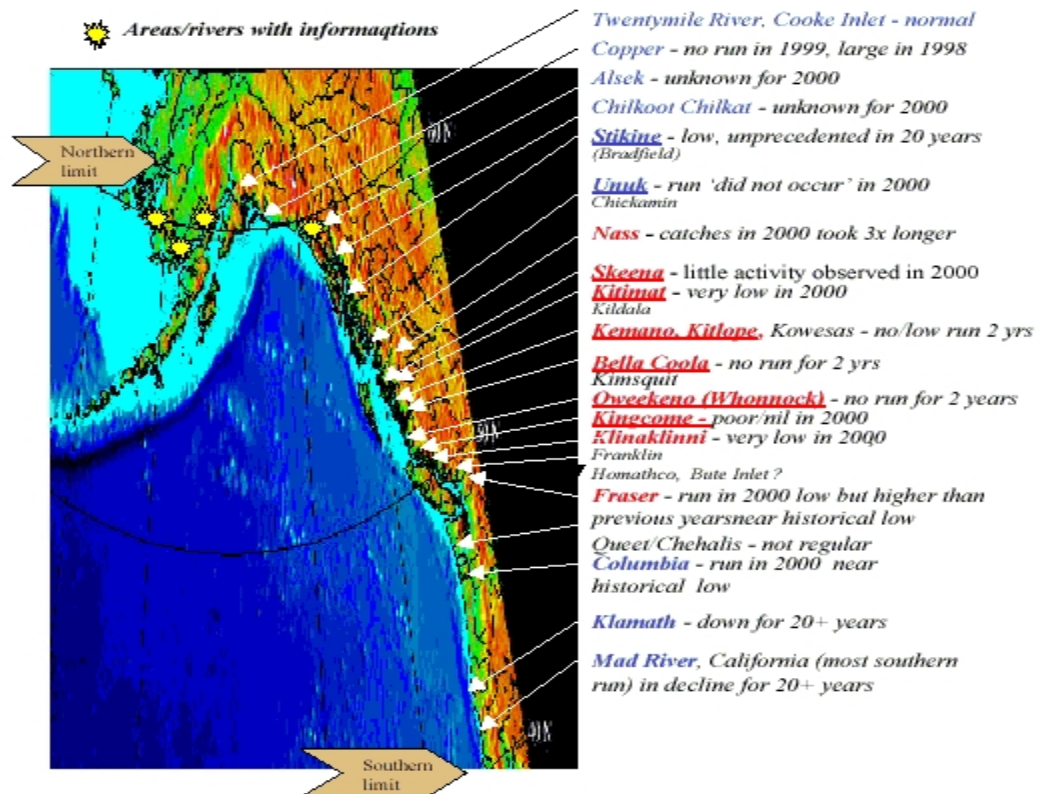


Fig. 2. Distribution, southern and northern limits, and recent comments on river-specific status of eulachons in 1999 and 2000. Eulachon runs in all rivers under observation are indicated with bold font. Rivers with no apparent no runs in 2000 are underlined. Other runs were not observed in 2000.

The distribution of diseases

Source: Boyd, Robert, Handbook of North American Indians Vol.7 Northwest Coast, Smithsonian Institute, Washington 1990 p. 142, 43.



Fig. 5 Diffusion of smallpox

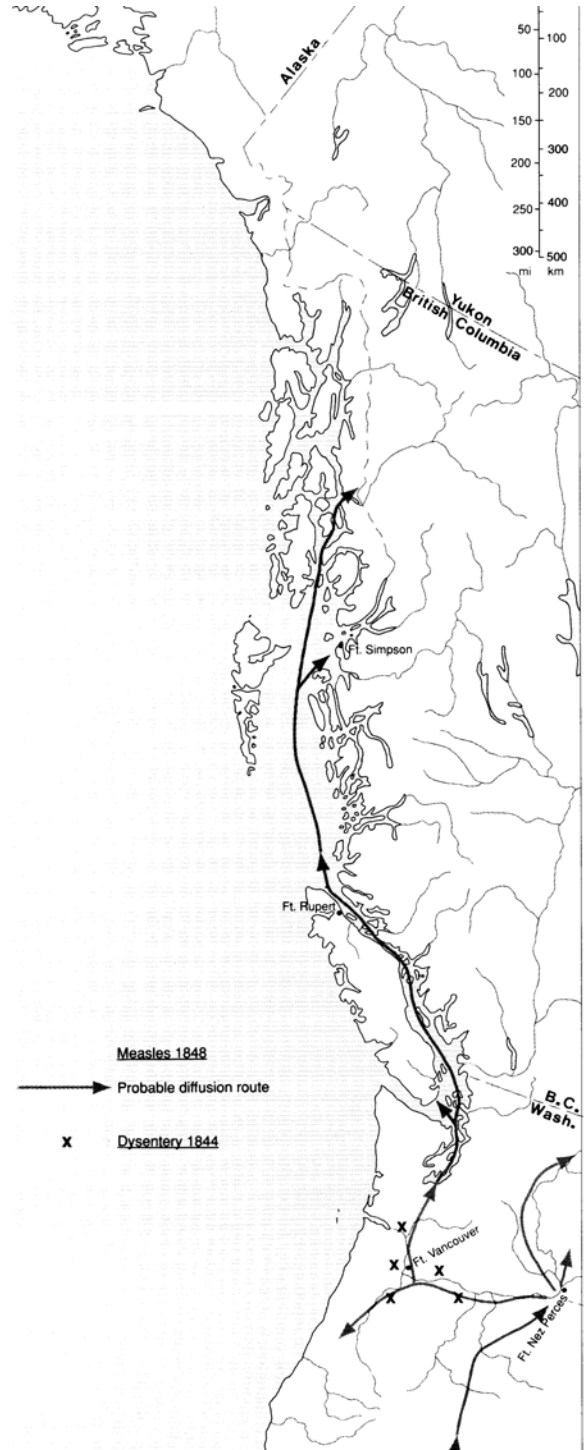


Fig. 6 Diffusion of measles

The transportation Infrastructure

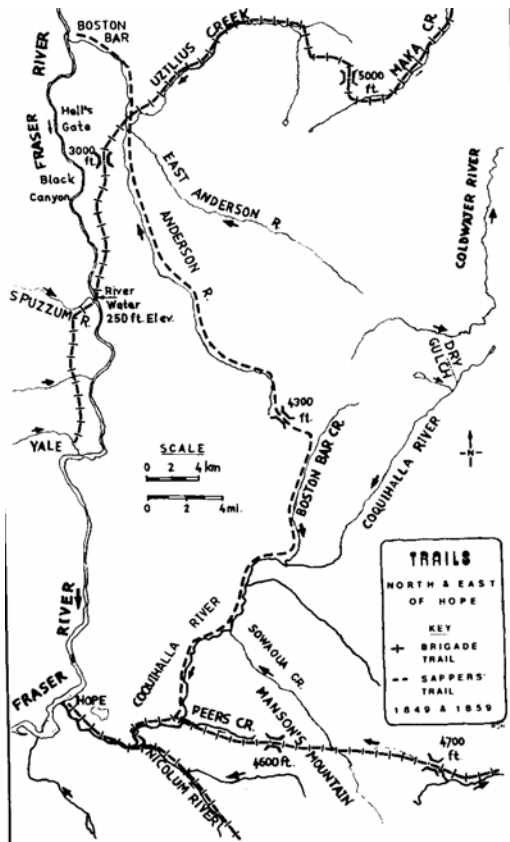


Fig.7: Early Trails
 Source: Robert Harvey, "The Coast Connection",



Fig.8: Northwest North America, 1811-61:
 The Routes of the Fur Brigades
 Source: Robert Harvey, "The Coast Connection", p.22.

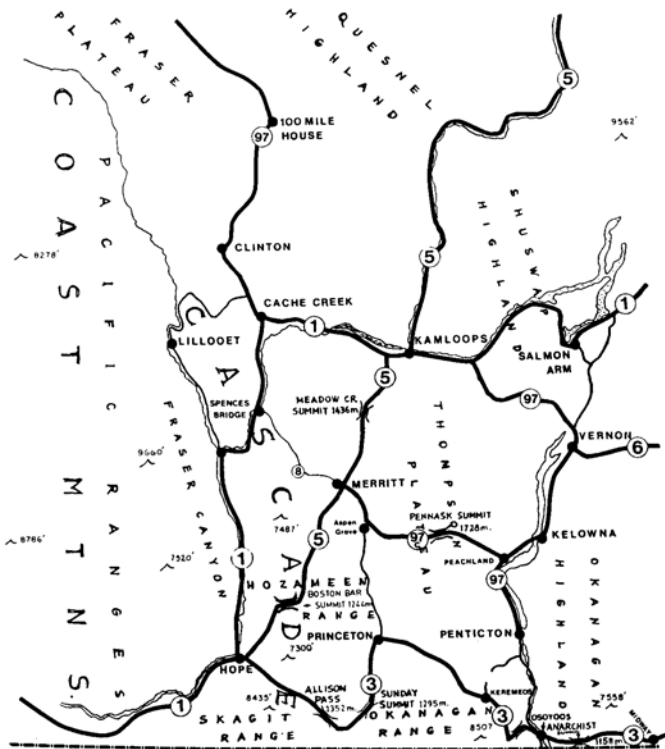


Fig. 9: Roads in Lower B.C.
 Source: Robert Harvey, "The Coast Connection, p.10.

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