Sharing Resources on the North Pacific Coast of North America: The Case of the Eulachon Fishery

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Abstract: Rights to exploit resource loci were usually owned in the Northwest Coast culture area and were normally held by descent groups. This was true of the right to fish for eulachon, a small, oil-rich, and highly valued anadromous fish which spawned in a limited number of river estuaries on the north Pacific coast of North America. At some of these spawning sites from 5 000 to 10 000 people assembled each spring, yet the participants did not form a political unit in any sense. In the absence of formal political structure, and despite frequent conflict, multicommunity exploitation of this rich resource was enabled by a shared concept of rights and traditional, informal, means of ending disputes.

Résumé: Dans l'aire culturelle de la côte du Nord-Ouest, les droits d'exploiter les ressources territoriales étaient traités comme une propriété et étaient normalement détenus par des groupes de filiation. C'était le cas du droit de pêche de l'eulakane, un petit poisson anadrome riche en huile et très recherché qui frayait dans les estuaires de quelques rivières sur la côte du Pacifique, au nord de l'Amérique du Nord. À certains de ces sites de frai, de cinq à dix mille personnes s'assemblaient chaque printemps; les participants, cependant ne formaient en aucune manière une unité politique. En l'absence de structures politiques formelles, et malgré des conflits fréquents, une exploitation conjointe de cette riche ressource a été rendue possible par une coneption commune de la notion de droit et par les moyens informels traditionnels de régler les disputes.

Eulachon: Preface to the two following papers

The original versions of these two papers were presented in October 1998 at the 8th International Conference on Hunting and Gathering Societies, in Osaka, Japan. They were written for that occasion independently, for until receipt of the final programme none of the authors was aware that another paper on the Northwest Coast eulachon fishery was scheduled. Indeed, all were surprised that a topic with such a small literature would elicit two papers at a single conference. The papers had been assigned to different sessions, but upon hearing each other's presentation, we felt that they were complementary in several ways and we agreed they would benefit if published as a set.

As readers will discover, while the papers share a fish, the perspectives are quite different. Gloria Cranmer Webster's "Dzawadi" deals with a contemporary fishery and is written from the perspective of a Nimpkish Kwakwaka'wakw who has long participated in activities at the place where her family has ancient rights to harvest and process eulachon. Donald Mitchell and Leland Donald's "Sharing Resources on the Northwest Coast: The Case of the Eulachon Fishery" is an ethnohistoric treatment of eulachon fisheries, drawing on historic and ethnographic materials from the entire Northwest Coast. While all three authors are aware the perspectives offered do not exhaust possible views on this small fish, we do feel they give recognition to the importance of eulachon and to the significant relationship, both past and present, between this resource and many Aboriginal peoples on the north Pacific coast of North America.

Gloria Cranmer Webster's paper focusses on the fishery at the head of what is now called Knight Inlet. As Dzawadi is one of the fisheries discussed by Donald Mitchell and Leland Donald, interested readers can locate that place on Figure 1 of their paper. The contemporary community of Alert Bay is located on the small

crescent-shaped island situated just north of the label "Nimpkish" on that same figure.

This paper is about the Aboriginal eulachon fishery of North America's Northwest Coast at a time that can be simply identified as a few generations ago. The manner of the Aboriginal exploitation of this resource raises questions about how aggregations of people form and, at least briefly, continue in the absence of formal political arrangements and raises questions about the concept of property and how access to resources is obtained, controlled and maintained.

In hunter-gatherer studies aggregations and their character and purpose have been a major theme. As Richard Lee (1999: 828) has pointed out, all known hunter-gatherers have practised a pattern of concentration and dispersal of people during the course of their annual rounds and this pattern cuts across those differences among hunter-gatherer societies that have led to the distinction between simple and complex foragers. Seasonal assemblies involving people drawn from more than one local group were important on the Northwest Coast and in an earlier study one of us (Mitchell, 1983) reviewed such aggregations in the central portion of the region. Here we look at the entire culture area concentrating on aggregations based on a single very important resource. This enables us to clarify the nature of such assemblies and examine in greater detail what may underlie their characteristics.

After a period of relative neglect, anthropological interest in concepts of "property" (or "ownership") has recently begun to return (see, for example, Hann, 1998; Hunt and Gilman, 1998; and Rigsby, 1998). This reappearance is partly fuelled by growing issues surrounding indigenous people's rights to land and resources in a number of countries (Australia and Canada, for example). Legal cases and political issues often involve questions regarding traditional forms of property, tenure, and access to resources. The traditional cultures of the north Pacific coast of North America have been long depicted in the anthropological literature as particularly concerned with notions of property and ownership. Despite this characterization, little systematic work on the regional conceptions of property and ownership has been done. By focussing on a single resource, eulachon, this paper is a beginning foray into questions about Northwest Coast property concepts and their uses by the peoples of the region.

Our main interest here is with what eulachon fishery aggregations tell us concerning intergroup social relations on the Northwest Coast and on what access to an eulachon fishery tells us about the concept of property. We begin, however, with a brief introduction to this remarkable fish, to its use by the people of the Northwest Coast, and to the technological side of the fishery.[1]

Eulachon as a Resource

The eulachon—*Thaleichthys pacificus* (Richardson, 1836)—is a small (commonly 15-23 cm long) anadromous smelt which begins life in the lower reaches of a few widespread streams in northwestern North America. Shortly after hatching, the 5-7 mm long larvae are flushed out to saltwater by the current of the natal stream. Some remain in the comparatively sheltered inland waters while others drift with the tidal currents out to the open ocean. As they grow, they feed on the larvae of small marine organisms—on phytoplankton, euphausiids and copepods. Eulachon mature towards the end of their second or third year and from mid-March to mid-May reenter their birth stream to spawn. Many die after spawning, but others live, perhaps to return again. (More details of the life history are to be found in Hart, 1973: 148-150.)

It is during the brief spawning period that these fish were taken by the indigenous peoples of the area. However, although widely-distributed (from the Russian River in California to the Pribilof Islands of Alaska) eulachon were not widely available. Whatever may have been the situation in earlier times, for the historic era we have been able to discover only 35 recorded spawning streams or locales (or up to 40 if we include all tributaries of the Columbia River system within which spawning has been recorded). And of these, in only a very few—perhaps eleven at the most—were the runs of significant size. Large areas of the coast were eulachon deserts: none spawned in the streams of the Queen Charlotte Islands and they were all but absent as well from the west coast of Vancouver Island. Thus both the Haida and the majority of the Nuu-chah-nulth (Nootka) were without these fish in their territories.

Wherever fished, they were taken with very similar devices. The herring rake was a 150-180cm long wooden pole of flattened cross-section with short bone points set into one edge or both edges along about half of the pole's length. The fisherman stood or knelt in the bow of the canoe, swept the rake through the schooling fish in a paddling motion, and at the end of each stroke, discharged those impaled into the canoe. The dip net was a fine-meshed, usually shallow, bag suspended from a frame of varying design. This device, too, was usually wielded amongst schooling fish from a canoe. There was sometimes a means of closing the mouth of the bag to

secure the catch. Cylindrical wicker traps were employed at some locations and very long conical bag nets set to stream out from posts driven into the river bottom—the principal trap described for the important Nass river fishery—are generally thought to have been a recent addition. Their use was not restricted to the Nass.

The fish were eaten fresh, were smoked or dried for later use, or were rendered into oil. It seems that from the Kwakwa̲ka̲'wakw (Southern Kwakiutl) north, oil was the main product of the fishery while from the Central Coast Salish on south, although some oil was extracted, most of the catch was dried. The rendering process was similar throughout the northern part of the coast. Eulachon were stored in pits dug into the ground or in big cedar plank bins for a little over a week. They were then boiled in large wood vats—sometimes dugout canoes were pressed into service—and the freed oil was skimmed from the surface for storage in wooden boxes or the bulbs and long hollow stems of kelp. When cooled to around 10°C the oil firms to a butterlike consistency and does not liquefy again until the temperature has been raised to about 21°C.

Early historic claims for exceptional health-giving and curative properties (Blenkinsop, 1885; Brown, 1868) have only in part been confirmed by more recent nutritional analyses (Kuhnlein, Chan, Thompson and Nakai 1982; Kuhnlein, Yeboah, Sedgemore, Sedgemore and Chan, 1996). Both fish and processed grease are rich in vitamins A and E and the fish, fresh, smoked, or dried, are a source of modest amounts of calcium, phosphorus, iron, and zinc. Perhaps most important, unsaturated fat content, at 65 percent, is double that of saturated (32 percent). Further, the grease contains significant levels of a beneficial fatty acid which acts to reduce blood cholesterol and triglycerides. Oils, like that derived from eulachon, have additional or other desirable properties. They are in demand as a condiment, important to make more palatable a diet that for so much of the year consisted of dried foods and no doubt aiding in passage of such fare through the alimentary canal. Another use was as a preserving medium for fruit. Drucker (1950: 176, 247) notes that from the Nuxalk (Bella Coola) and Heiltsuk north, crabapples and berries were stored in a frothy eulachon oil emulsion, in which medium "they could be kept for a long time." Included in a long list of plant foods and materials exchanged by inhabitants of Northwestern North America (Turner and Loewen, 1998: 54) are Pacific crabapples, bog cranberries, and highbush cranberries, all of which, fresh or preserved in water or eulachon oil, were "widely traded" along the coast "and probably among interior peoples."

Relative to other food resources of the Northwest Coast, these fish ranked high. Fladmark's (1975: 50-53) review of principal ethnographies for the central and northern portions of the coast found eulachon to rank sixth overall, after salmon, halibut, herring "other" fish, and sea-mammals. However, if we ignore those ethnolinguistic groups whose territories lacked eulachon (Haida and Nuu-chah-nulth), the ranking for the remaining groups assessed (Tlingit, Tsimshian, Kwakwa̲ka̲'wakw, and Coast Salish) positions eulachon in second place, after salmon.

Ethnographic and ethnohistoric sources confirm this high value appointed the eulachon fishery by many groups, but especially those of the northern coast. Swan (1881: 259) commented that the fish were "highly prized by the Indians of Northern British Columbia and Southern Alaska" and Collison (1941: 26) wrote of the oil as "one of the necessities of life to the Indians over a vast area of the Northwest Coast and the adjacent interior." They seem to have been of particular importance to the Tsimshian. Drucker (1965: 117) described eulachon grease as "one of the great riches of the Tsimshian tribes;" Garfield (1951: 13) placed them "second in importance (after salmon) among basic seafood resources;" and William Beynon (1929-30: 41) obtained from two Coast Tsimshian the observation that "the main food of the Tsimsyen which may even outrank the salmon is the oolichan and the oolichan grease . . ." and from a Kincolith (Gitksan Tsimshian), that "The oolichans are considered the most valuable of food among the Tsimsiyaen" (Beynon, 1952). Boas (1966: 8) included eulachon with salmon and halibut as the three staples on which the Kwakwa̲ka̲'wakw depended "almost entirely" and for these people, Curtis (1915: 44), too, classifies the eulachon oil as one of the staple foods, "without which no self-respecting family would attempt to do." For the Nuxalk, McIlwraith (1948I: 3) also refers to eulachon as a staple and he assigns them second rank in importance after salmon.

Less has been said about the relative value assigned to the eulachon fisheries further south, but it can be noted that for the Lower Chinook, Ray (1938: 107) reported these smelt "in great demand" and that Pacific Fur Company employees at Fort Astoria found that canoeloads of Clatsops passing down the Columbia in February of 1812 "laden with Sturgeon & Uthlechans would not dispose of them on any account whatever" (Jones, 1999: 72). For at least some Halkomelem Salish, a spring month was identified by name with the fishery. The Katzie called April, *təɲwi'w'ətən* "appearance of the first eulachon" (Jenness, 1955: 9) while the "Sardis"

(Chilliwack) and the Nanaimo terms applied to May and their meaning, according to Jenness (1934-35) was "eulachon month." An entry in the Hudson's Bay Company's Fort Langley Journal dated April 28th, 1828, reads, "The little fish[e]s which the Chinooks calls Ullachan begin to make their appearance here, And are joyffully hailed by the Indians of the river."

Further indication that eulachon were regarded as an important resource is provided by ceremony, custom, and myth. The well-known "grease feasts" of the Kwakwaka'wakw, at which huge quantities of eulachon oil were consumed and burned as rival titleholders sought to outdo one another in their disregard for wealth (Boas, 1897: 354-56) were the "greatest feast given to many tribes" (Boas, 1921: 754-55). The burning of eulachon oil was also a feature of important Tsimshian feasts—those where the host especially wished to show how wealthy he was (MacDonald and Cove, 1987: 182, 183)—and is recorded as well for the Nuxalk (McIlwraith, 1948I: 225; 1948II: 66).

"First eulachon" rites were reported by Drucker's (1950: 222) informants for the Haihais, Gilutsau Coast Tsimshian, and the Sanya and Chilkat Tlingit. In a text dealing with Kitkatla Tsimshian fishing rituals, Beynon (1916) wrote, for example, "if a man got the oolichan he would give it to the oldest child of his oldest brother and the brother would have to give gifts," while his Metlakatla Tsimshian informants told him, "The first oolichan caught would be taken by the paternal uncle to his brothers children and given them (Beynon, 1929-30: 44). Among several taboos concerning eulachon, Beynon (1929-30: 44) mentions that "No one was allowed to make any ridiculous remark concerning the oolichans for fear the fish would go away and the people would starve."

Each Nuxalk fisherman collected his initial catches in a box. None of this might be eaten until there was sufficient to host a feast grand enough that guests would have plenty to take home with them. Women were tabooed from sharing this first meal and were not allowed to assist in the fishing nor even to be on the bank of the river while the eulachon were running (McIlwraith, 1948I: 263, 759).

For the Kwakwaka'wakw, Boas (1930: 203-205) records customs, rituals, and prayers accompanying the taking of the first eulachon at Dzawadi. Reference is made to one titleholder's privilege of initiating each season's fishery; to separate prayers that titleholders and commoners recited before using their dipnets (the prayers in part entreat return of the fish next year); and to the ritual performance by all fishermen of the first dipnetting of the season. There is also a prayer offered by the woman who held the privilege of being the first to string eulachon for drying. This, too, expresses hope the fish will come back the following year. Portions of two prayers are quoted in the accompanying paper by Gloria Cranmer Webster.

In myths, eulachon most often appear as one of a few important resources some benefactor of humankind causes to begin annual and abundant runs into certain rivers. For example, in various family traditions, Atlquntam, the Nuxalk supreme god, sent down the first humans, one of whom—part eagle—brought with him a single eulachon. Thrown into a river, the fish becomes the source of that stream's plentiful eulachon runs (McIlwraith, 1948I: 302, 311, 326). The Katzie Coast Salish held that their hero Swaneset returned from the sky with a wife who brought a box which when opened, released eulachon into the Fraser River. She also taught the Katzie how to catch these fish with the aid of a herring rake (Suttles, 1955: 23). In one Kwakwaka'wakw story, it is Raven who seizes the mythical fish people and flings them far and wide, crying out, "You will be the salmon for this river! You will be the oulachon for that river!" (Curtis, 1915: 247). Raven, who had created people, also brought the fishery to the Tsimshian by first jumping on Gull's stomach to make him throw up an eulachon. He then used this fish to trick a mythical chief (within whose house dwelled the eulachon) into thinking their run to the Nass River had begun much earlier than the chief normally permitted. Believing he had lost control, the chief ordered the corners of his house broken open and eulachon then began to flow into the water in their thousands. With Raven's encouragement, they entered the river, and that is why "on Nass River the olachen fishing begins very early in the spring" (Boas, 1916: 66). Raven figures as well in Nuxalk mythology, in this case as the originator of the art of making nettle-fibre eulachon nets, knowledge which he then passed on to spiders and humans (McIlwraith, 1948I: 89).

For perhaps all of those coastal groups who sought eulachon, the great importance of this fish lay in their time of arrival. As Beynon (1929-30: 41) put it for the Tsimshian, "It was the first fish caught and was very often styled the starvation fish, as it came just when the people were on the verge of starvation before the appearance of salmon and always in great quantities and always easy to get." The Nisga'a still refer to eulachon as */ha'liimootkw/* "means of saving, salvation" or "saviour" (Bruce Rigsby, personal communication). Incidents where starvation is evaded by the arrival of this fish are included in texts recorded for the Chinook (Boas 1894: 230-232) and Kathlamet (Boas 1901: 35, 36-38) on the

Columbia River. Late winter and early spring were the precarious months when stored supplies were running out and the new year's fresh foods were yet scarce. Additionally, as Speth and Spielman (1983) have suggested, hunter-gatherer populations routinely faced food stress in late winter that resulted in a need for carbohydrates and oil. The plentiful and nutritious eulachon arrived at a critical time (Garfield, 1951: 13; Krause, 1956: 122).

Access to Products of the Fisheries

Not surprisingly, given the limited availability but considerable desirability of eulachon and their oil, arrangements had developed for wider distribution or greater accessibility. This was in keeping with what Jorgensen's (1980) comprehensive survey found for western North America. He reports that one way or another most groups in this area had access to the food resources of neighbours. The emphasis on means varied from region to region, but among the ways he lists are trading, raiding, being guests at feasts, gifting, and participating in the harvest of resources within the territories of others (Jorgensen, 1980: 128). He suggested that on the Northwest Coast, "ceremonial feasting and gifting were the means of access," but, in fact, all modes of access are to be found here, and for wider distribution of the products of the eulachon fishery, trade and the right to partake in the harvest assume particular importance.

There was a well-known trade in oil, carrying the product both to groups whose coastal territories were devoid of eulachon and to those who resided in the interior, beyond the coast mountains. This interior trade in particular led to the establishment of what have come to be known as "grease trails" (e.g., Collison, 1941: 26; Goddard, 1945: 69; Harrington, 1953: 43) over which hundreds of gallons of boxed eulachon oil were packed each year.

It was through trade, for example, that the Haida acquired products of the fishery (Curtis, 1916: 134). They travelled each year from the Queen Charlotte Islands to the mouth of the Nass River to trade with the Nisga'a, swapping dried herring spawn, dried halibut, and even canoes (Boas, 1916: 57) for dried eulachon and oil. The trails from the upper Skeena River to the Nass were especially active. People from various Gitksan groups in the interior set out before the snow had gone, wearing snowshoes and in recent times pulling sleds as they travelled along the pathways and down the frozen streams to the coast. They traded elk and caribou hides for the boxes of oil and then returned, a round-trip journey of up to 300km. It is also known that Nisga'a traders from the Nass packed oil up these grease trails at least as far as Kitwancool, 120km into the interior (MacDonald and Cove, 1987: 19).

Trade carried oil the Kwakwa̲ka̲'wakw produced at their two main fisheries, across Vancouver Island to the Nuu-chah-nulth (Drucker, 1951: 375). It was the means by which Bella Coola River oil made its way to the Carrier, east of the Coast Mountains, and Lower Columbia River dried fish became available to people in the southwestern part of the Plateau culture area (Boyd and Hajda, 1987: 318; Silverstein, 1990: 536).

Besides distribution of the resource through trade, more direct participation in the fisheries was afforded to some whose own streams supported no eulachon. Members of many groups on the coast and some situated inland, gathered each spring at those few streams known for their abundance of eulachon.

To put these eulachon fishing assemblies into context, we should recognize that both the sharing of access to resources and formation of seasonal population aggregations were common Northwest Coast practices—indeed, they are common-places of hunter-gatherer behaviour worldwide.

Everywhere on the Northwest Coast, rights to exploit particular resources at particular locales were held by local groups,[2] kinship groups, or individuals. But everywhere, too, it seems, permission to make use of such owned resources could be granted. This is clearly the case where members of a local group's constituent descent groups are involved (e.g., Barnett, 1955: 252; Drucker, 1951: 251; Emmons, 1991: 22, 47; McIlwraith, 1948I: 132). The privilege could be temporarily extended to individual visitors but, in some cases, regular incursions by large numbers of people were tolerated or ignored by those within whose traditional territory the resource was available. Drucker (1951: 256), for example, reports for the Nuu-chah-nulth, that leaders of the Chickliset, Ehetisat, Nuchatlet, and Kyuquot shared the right to collect dentalia at Tatchu Point in Ehetisat territory. Dawson (1887: 72) and Duff (*ca* 1965) note that some Fort Rupert Kwakwa̲ka̲'wakw had access to the salmon runs of the Nimpkish River—a Nimpkish Kwakwa̲ka̲'wakw resource. And Turner and Loewen (1998: 58) cite several cases of inter-group resource sharing ranging from the Tsimshian and Haisla to the Fraser River Salish and Dididaht of southwestern Vancouver Island involving such resource locales as camas fields, wapato and cranberry bogs, berry patches, hunting territories, fishing grounds, and seaweed beaches.

Periodic aggregation of population was also characteristic of the Northwest Coast seasonal round of subsistence and ceremonial activity. It could be said that for

local groups in general, the basic settlement pattern was one of winter gathering at a village site and spring, summer, and fall dispersal to resource camps. But as one of us has earlier shown for the central portion of the culture area (Mitchell 1983), there are numerous variations on the underlying model, including assemblies drawing members from two or more autonomous local groups—as took place at some wintering locations, at clam and berry-gathering grounds, at bases for halibut-fishing and whale-hunting, and at some especially productive salmon and eulachon fisheries.

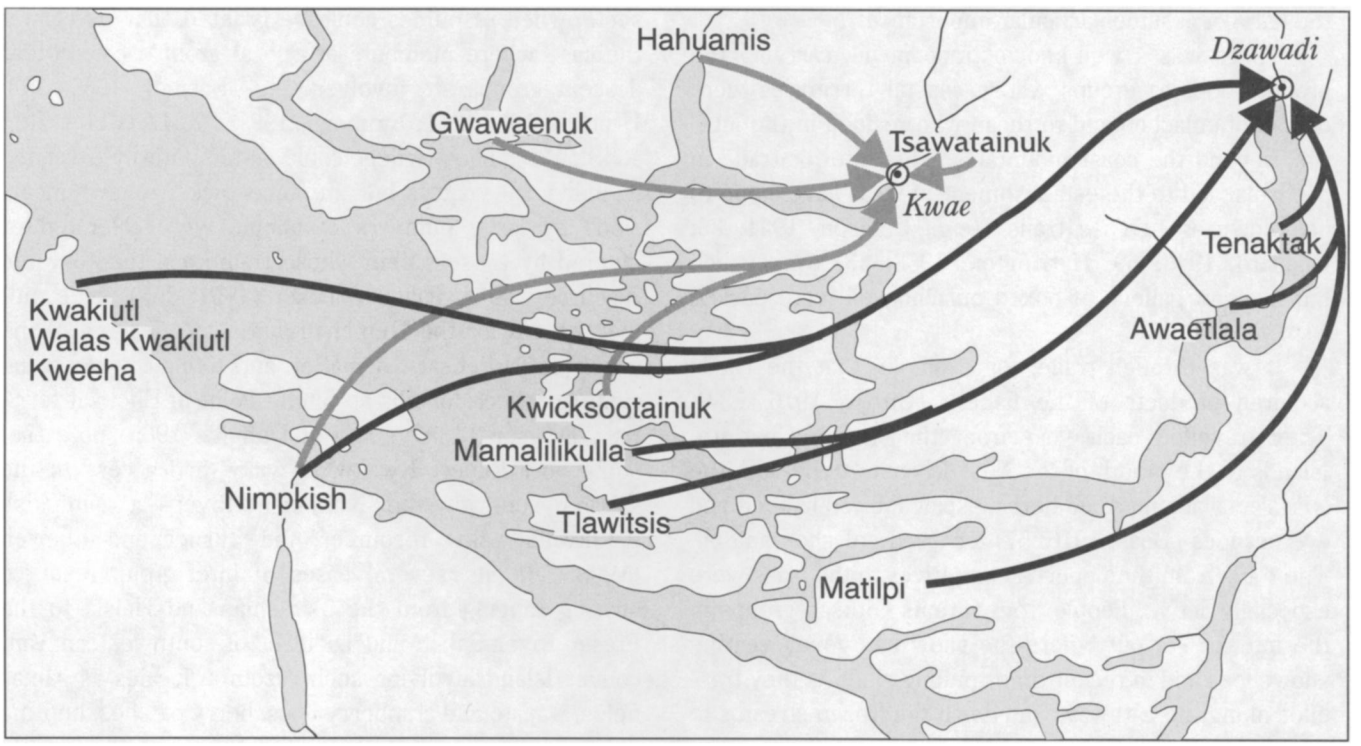
Eulachon Fishery Aggregations

The principal eulachon fishery assemblies were at the Nass River, at Kwae on the Kingcome River, at Dzawadi on the Klinaklini River, at the Squamish River, and on the lower reaches of the Fraser River. Less well documented are aggregations that may have formed to harvest the large Columbia River runs.

The Fraser River eulachon were directly accessible to all those autonomous Salishan local groups Suttles (1990: 454-455) identifies as the Downriver Halkomelem but the spawning runs commonly reached only a short distance into the Upriver Halkomelem area. Accordingly, Upriver groups from as far into the Fraser River Canyon as Yale assembled each spring in the territories of their westernmost local groups (Duff, 1952: 70-71). The Downriver groups were joined, at least after the establishment of the Hudson's Bay Company's Fort Langley, by numbers of Squamish camped among the Downriver Halkomelem during the eulachon season (Fort Langley Journal, May 11, 1830) and, while there is no record of them doing so, they may have taken fish. That the Nanaimo, as earlier noted, designated an "eulachon month" is of some interest. Although based on Vancouver Island, they are known to have had a Fraser River settlement (Barnett, 1955: map facing page 24) that was occupied in the summer for salmon-fishing. Possibly some Nanaimo were in residence earlier and participated in the great eulachon fishery of the Fraser River.

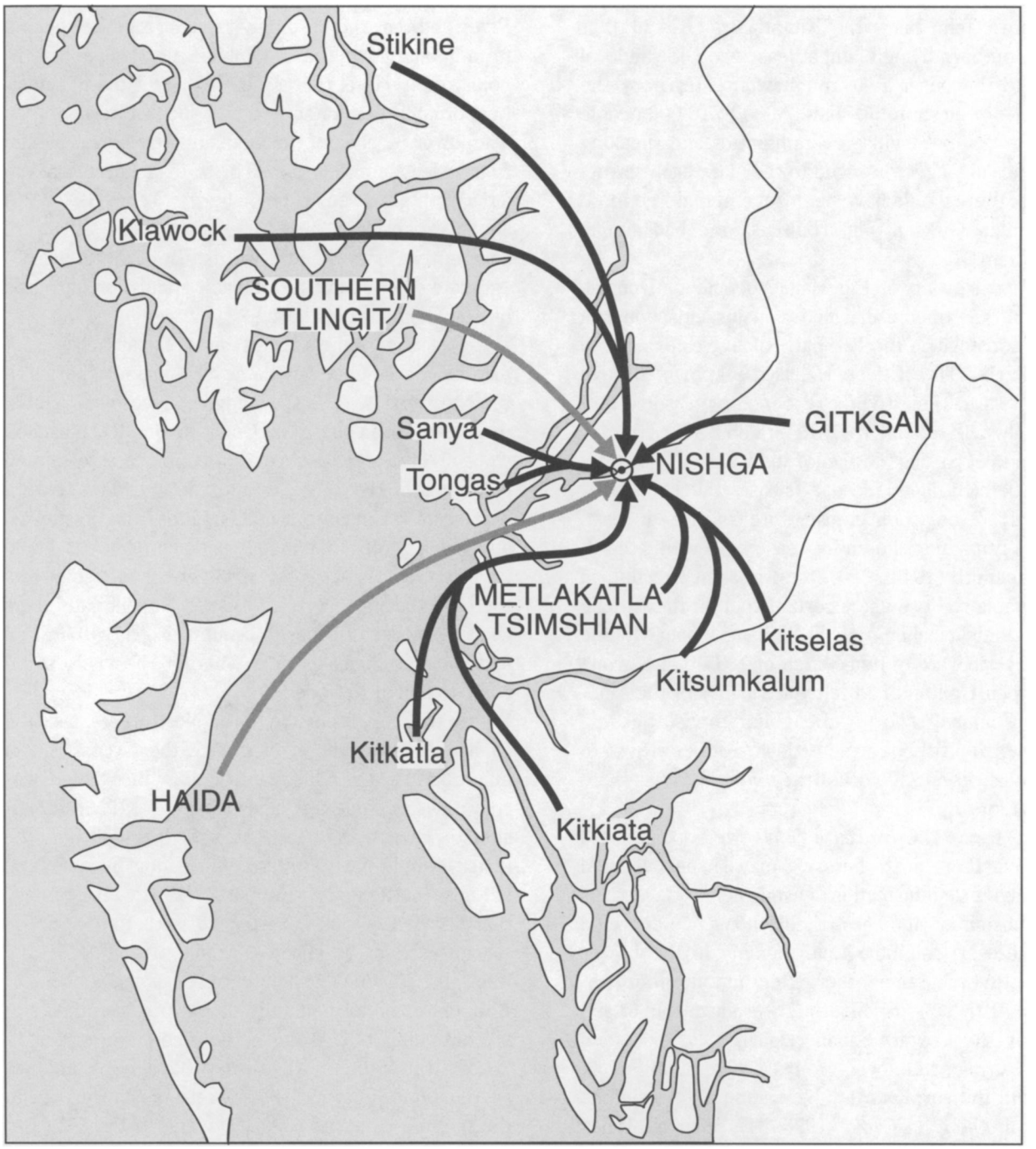
Similarly, Barnett (1955: 31) records that where the Squamish River enters Howe Sound was "the common resort of all the Squamish in the spring when the eulachon were running." "All the Squamish" would mean the assembly of members from some 16 or more local groups who spoke the same Salishan language (Suttles, 1990:

Figure 1



Kwakwaka'wakw local groups aggregating at the Kingcome River and Knight Inlet eulachon fisheries. Black arrows indicate those with rights to fish at Dzawadi, shaded, those with rights at Kwae.

Figure 2



Groups assembling at the Nass River to fish or trade for eulachon. Black arrows indicate groups with rights to fish, shaded, those who came to trade.

453) for a gathering of about 1700 people (Boyd 1999: 263).[3]

The locales called Kwae and Dzawadi were the gathering-places for members of various Kwakwa̲ka̲'wakw local groups (Figure 1). At Kwae assembled 2 000 to 3 000 eulachon-fishers from at least five groups (Tsawatainuk, Hahuamis, Gwawwainuk, Kwiksutainuk, and Nimpkish); at Dzawadi, 5 000 to 7 000 from nine (Tenaktak, Awaitlala, Mamalillikulla, Tlawitsis, Matilpi, Nimpkish, Kwakiutl, Walas Kwakiutl, and Kweeha).

The Nass River fishery is perhaps the most famous on the coast (Figure 2). It brought together members of

the ten Lower Skeena River Coast Tsimshian local groups, the two Canyon Coast Tsimshian local groups, two southern Tsimshian (the Kitkatla and Kitkiata), at least two southern Tlingit, and at least two Gitksan local groups, and the Nisga'a—through whose territory the Nass River flowed. In total, some 7 000 to 10 000 people belonging to 23 or 24 village communities and speaking at least four languages thronged to the Nass each spring. In addition, there would have been several hundred more Haida, Tlingit, Gitksan, and Heiltsuk who had simply come to trade.

Each local group of the Haisla people of Douglas Channel and Gardner Canal had a major eulachon run within its territory, in the Kitimat, Kildala, Kemano, and Kitlope Rivers. The Kitlope Haisla are known to have shared access to their river's resources with some outsiders. McIlwraith (1922-24: 47; 1948II: 359, 360) recorded that Rivers Inlet parties (Owikeno) and Kitkatla Tsimshian, including the high-ranking leader Tsibasa, travelled to Kitlope to prepare eulachon grease, with Tsibasa, at least, sometimes remaining the entire season. As well, according to McIlwraith (1948I: 384), the Kimsquit Nuxalk had "an inalienable right to use a certain spot on the Kitlobe River for their olachen nets." William Fraser Tolmie (1963: 305) reported in mid-March of 1835 that a group of Weetletoch Heiltsuk had left the vicinity of the Hudson's Bay Company's Fort McLoughlin "to visit Sebassa & thereafter to proceed to the Kitloah [Kitlope] River to procure oolachan oil." Whether they visited to fish or to trade is not known.

Apart from these reasonably well-documented aggregations, there are others we may suspect existed but for which little information is available:

1. Very substantial numbers of eulachon once spawned in the Lower Columbia River, mainly in the Lower Cowlitz River and to a lesser extent in four other tributaries. At these locations, they were available to and taken by the Cowlitz Salish (Hajda, 1990: 506) and various Chinookan local groups (Silverstein, 1990: 536) with the surplus catch being traded to residents further up the river (Boyd, 1996: 64). Boyd and Hajda (1987) interpret differing population figures recorded by the Lewis and Clark expedition in the fall of 1805 and spring of 1806 as evidence for late winter/early spring population aggregation at several Lower Columbia resource locales. They observe that the inferred seasonal assemblies coincide with spawning runs of eulachon and chinook salmon and with the entry of sturgeon (who preyed on eulachon) into shallower water. Boyd and Hajda (1987 and personal communications from both authors) suggest there was an aggregation at least partly based on an eulachon fishery on and in the vicinity of the mouth of the Cowlitz River and that the assembly brought together people from up and down the Columbia River. However, ethnohistoric records tell us nothing about the composition, organization, or activities of such gatherings.
2. The lower reaches of the Quinault River drew people from at least some of the 20 or so Quinault villages to an early spring eulachon fishery (Olson, 1936: 36) about which little more is known. The fish were apparently plentiful and if we use Boyd's (1999: 263) estimate of 2 250 for the Quinault population, upwards of 1 000 may have gathered.
3. Local groups of the various divisions of the Nuxalk may have assembled at the several major fisheries in their territories. The spawning runs were substantial (especially so in the Bella Coola River), the eulachon were highly valued—second in importance to salmon (McIlwraith, 1948I: 3), and most local groups resided outside of the fishing grounds. These circumstances suggest a strong likelihood that aggregations would have formed, however, so far as we have discovered, the only specific reference to such Nuxalk gatherings is in a semi-fictionalized account (Kopas, 1970: 58), and it does not make clear whether the visitors had come to fish or to trade.
4. Within the Tlingit portion of the Northwest coast, the Chilkat River is the stream with the largest run of eulachon. As the Chilkat division of the Tlingit was comprised of some 8 villages (Swanton, 1952: 541), it seems possible that here, as with the Quinault, the fishery would have attracted fishermen from several of these settlements. Emmons' (1991: 119) remark that during the run, "the people went into camp on the lower river by villages" would also suggest that more than just local residents were participating.
5. Although it is not generally thought to have had significant numbers of spawning eulachon, there are indications the Stikine River may have seen another aggregation. Simpson (1842) wrote of "Indians . . . to the number of about 2000 . . . watching the Ullochan Fishery." As there were perhaps 3 Stikine villages (Swanton, 1952: 542) and 2 000 exceeds estimates of 1840s population (De Laguna, 1990: 205), Simpson may have witnessed an assembly drawn from Stikine and other Tlingit local groups.

So, we have a highly valued resource that is seasonally abundant in a few restricted locations, and that especially once rendered into oil, becomes an important trading commodity. We also know that some eulachon fisheries drew people from several autonomous local groups into

close proximity for a month or more of harvesting and processing. Finally, we have learned that where the well-documented and attested seasonal assemblies are concerned, the numbers attending are in the thousands.

Such seasonal aggregation of large numbers of people drawn from up to 20 or so politically autonomous local groups raises important questions about social relations at the eulachon fisheries: (1) In a part of the world where intergroup fighting was seemingly endemic, how did the people manage to get along with one another for the several weeks they were in residence? (2) What arrangements allowed certain local groups to make this seasonal invasion and exploitation of the territory of others?

Maintaining "Peace" at the Eulachon Fisheries

In examining the first question we must begin by observing that at least the central and north coast fishing camps were apparently not all that peaceful. Of the Kwakwaka'wakw, Boas (1921: 1348) has written that eulachon trap owners "frequently" fight when others try to appropriate their location. And the three years that have survived of the daily journal kept at the Hudson's Bay Company's Fort Langley on the Lower Fraser river, reported one hostile encounter between Squamish and Kwantlen warriors at the river during the 1830 eulachon-fishing season (Fort Langley Journal, May 17, 1830). As for the Nass River fishery, the main collections of Tsimshian narratives (Boas, 1916; MacDonald and Cove, 1987) record enough cases of armed conflict among the groups assembled there to convince one such incidents were not unusual. On the other hand, the associations were sufficiently peaceful that year after year the local groups could come together to reap the rewarding harvest. If things did occasionally boil over, what kept the lid on the rest of the time?

Here is how two related situations that had escalated to retaliatory killings and taking of captives were resolved:

The Gispaxloats Tsimshian had gone south and raided the Heiltsuk (who were among those who visited the Nass to trade for oil). The Heiltsuk eventually returned that favour while the Gispaxloats were fishing for salmon on the Skeena. But when the young Gispaxloats then urged reprisal, an older leader counselled:

> . . . before you do it, carefully consider everything that has been already done. You attacked the Bella Bella [Heiltsuk], and did it so many times. They have retaliated. You have been paid back and it is equalized. This leaves the road clear just to redeem those that have been captured, and to have a feast at the Bella Bella village. Then there will be no further bloodshed. (MacDonald and Cove, 1987: 71)

And that is what they decide to do, but when they meet the Heiltsuk, they learn that some Haida had intercepted the returning party, captured its leader, and seized the captive Gispaxloats. The remaining Gispaxloats then mount a successful raid on the Haida, but the latter choose not to retaliate. During the following eulachon season, the Haida appear in their canoes before the Gispaxloats' Nass River village and propose to redeem those Haida in captivity. There followed, according to the narrative, ". . . a great exchange of wealth and canoes. . . . In this way another invasion was stopped. The Haida realized that they had to come every year to the Nass, to get eulachon and grease, by trading, so that a war with the Tsimshian was not advantageous" (MacDonald and Cove, 1987: 74).

Another dispute that was resolved involved several Metlakatla Tsimshian, the Kitselas, and the Nisga'a. There had been a killing and some retaliatory woundings and both sides were planning further actions when a titleholder of the Gitlan approached the other Metlakatla titleholders saying "We have done enough fighting between ourselves. Make your peace overtures to the Nishga so as to stop this fighting to no purpose. Should this keep on we will not be able to come to the Nass for eulachon, and then we will starve?" (Ibid.: 1987: 180). Other leaders not involved in the dispute counselled payment of compensation, as the Nisga'a would thereby be compelled to respond in like manner, "and peace would thus be established. No one would be endangered and all could go about the eulachon fishing without fear" (Ibid.: 1987: 181).

So there were ways of reconciliation if things got out of hand. Normally, like other tribal societies, they maintained peaceful relations with neighbours through kin ties, marriage alliances, and trading relationships. But if things blew up and mounted to feud, the shared customs of retributive killing and wergild would eventually cool things down and rebuild the peace.[4]

A contrasting means of dispute resolution is found in the relatively populous neighbouring Plateau culture area, where large resource-centred assemblies also occurred. Anastasio's (1972) survey of southern Plateau aggregations identified at least 15 of these, which reportedly brought together from 400 to 10 000 people and drew on from four to ten ethnolinguistic groups, including the "focal groups" within whose territory the assembly took place. In size and composition they were

therefore not that different from the coastal ones. However, most of those for which such information is available, are described as having a quite formal structure with one or more of the focal group's leaders in charge of the collective fishing, hunting, or root-gathering activities. Those who led were people who participants accepted had the technical and ritual knowledge necessary to ensure a bountiful harvest. For example, people drawn from up to 11 ethnolinguistic groups assembled at Kettle Falls on the Middle Columbia River to take salmon. As Hewes (1998: 628) describes it:

> Three weeks before the expected arrival of the salmon, the camps were occupied, and drying frames and storehouses were erected. The entire enterprise was said to be under the direction of a "chief" (ritualist?) whose basket trap was installed a month before the others could begin to fish.

Disputes among members of the southern Plateau aggregations were settled by the intervention of the leaders—a form of council which Anastasio (1972: 182-183) reports operated mainly by mediation and consensus. David Douglas, an early 19th-century visitor to Kettle Falls, recorded that a Sinkaietk headman he had engaged as a guide refused to leave until he had helped resolve a dispute between some Lakes and Kutenai Indians (Douglas, 1904: 362).

None of this sounds much like the almost anarchic situation of the Northwest Coast eulachon camps. But Anastasio does describe one assembly that seems much more familiar. This was the very large and unruly gathering that took place each year at The Dalles, where the Columbia river broke through the Cascade mountains into the coastal lowlands. With the Wasco and Wishram as focal groups, it attracted salmon fishermen from up to five additional ethnolinguistic groups and is described as "one of the largest and most important in the Plateau" but "also the least well ordered" (Anastasio, 1972: 161). An indication of that lack of order was provided by Alexander Ross (1904: 128) who observed during his 1810-13 travels that, in contrast to the state of affairs at other assemblies he had visited, groups at The Dalles offered no unified front in their dealings with White traders. When disputes arose, it was every group for itself. There was, as Anastasio (1972: 159) phrased it, "atomization of the focal site into a number of smaller sites" spread out along the river banks, each owned by a group of relatives. This "atomization" of sites and polities spilled over into the realm of ritual. Spier and Sapir (1930: 248) noted that with the Wishram at least, and in marked contrast to the prevailing Plateau practice, there was no such official as a salmon chief, and that the first salmon rite could be performed by any shaman.

The contrast between The Dalles and other southern Plateau aggregations is instructive for an understanding of social arrangements at the eulachon fisheries. In explaining the difference, Anastasio (1972: 161) concluded that for most of the southern Plateau, "conditions required the construction of large equipment and necessitated or permitted a single fishing site and some sort of central control." Further, "All present were entitled to an equal share of the fish and all were interested in seeing that the activity was properly conducted as directed by the salmon chief" (Anastasio, 1972: 176). By comparison, at The Dalles fishery, where there was that notable lack of order, "territories of the focal groups did not have one or a few sites, but many scattered along the river" (Ibid.: 1972: 159).

The situation at the coastal eulachon fisheries was essentially the same as at The Dalles. The fish and processing resources were plentiful and accessible from many locations at the fishery. Herring rakes, dip nets, basketry traps, or bag nets required no intergroup cooperation for their construction or effective employment, and thus central control and co-ordination were not necessitated. The usual conduct of each fishery, in other words, neither put people in one another's way nor led to inequitable access to desired resources. All that was required of participants was that they not unduly interfere with one another during the few weeks of the eulachon season. The constituent social units participating in each fishery remained autonomous, were required to share none of their catch or its products with other groups, and apart from acknowledgment of such traditional "first eulachon" privileges as we have seen for the Kwakwa̲ka̲'wakw, conducted themselves quite independently at the fishery.[5]

This is perhaps the most interesting lesson to be learned from study of the eulachon fishery: that the formation of even quite large, periodic, population aggregates does not necessarily lead to the development of more complex political structures. Bamforth (1988: 25) has suggested that, "At least at lower densities, it is possible in principle for regional population to increase substantially without triggering any organizational change, so long as there are no changes in the frequency, size, or duration of social aggregations." We would extend this generalization to situations where relatively high densities (see Boyd, 1999 and, for the North American population density distribution, Kroeber, 1939, Map 18) and sizeable seasonal, one or two month long aggregations are involved.

Suttles (1968: 65) made this point explicitly for the Central Coast Salish when he wrote that "subsistence activities and also ceremonial activities often brought together people from several villages over areas which crossed dialect and even language boundaries, but there were no structural principles that allowed for the definition of discrete social units." The same conclusion was reached in the already-mentioned study of aggregations in a larger portion of the central Northwest Coast (Mitchell, 1983): save for the whaling-centred Nuu-chah-nulth "confederations," no autonomy was surrendered by local or kinship groups who participated in winter settlement or resource exploitation aggregations. As that study observed,

> ... what was needed was simply peaceful coexistence at some unusually productive resource locus or particularly desirable wintering location. No great feats of organization were necessary for employment of the technology, for gaining access to the resources, for dividing up the resultant harvest, or for simply waiting out the winter. The constituent units of an aggregation merely did, side by side, what other village units on the coast were doing in isolation. (Mitchell, 1983: 104)

Access to Resources and Property Concepts

Our other main question—What arrangements allowed certain outsiders to make this seasonal invasion and exploitation of the territory of others?—takes us to the meaning of property rights and how access to resources was controlled.

When ecological studies in anthropology moved on from considering how cultures or societies adapted to their environments and instead began to conceptualize the problem as one of how populations adapted to their environments, the analytic and explanatory modes of biological ecology began to dominate much work in anthropological ecology. Studies of territory, range, and use replaced discussions of property in considerations of access to resources and control of such access. This is particularly evident in recent studies of hunter-gatherers (see Kelly, 1995 for a good range of examples of the results of such work). A biologically inspired focus on territoriality has been fruitful, especially in the case of hunter-gatherers, but it is most successful in helping us to understand the distribution of populations, the seasonal movement and dispersal/aggregation of people and similar phenomena.

The peoples of the Northwest Coast were certainly foragers in Aboriginal times and their complex seasonal rounds were constrained and shaped by the character of their resource base in ways that can be illuminated by ideas drawn from biological ecology: local groups did indeed occupy and exploit territories. But, as the eulachon example suggests, these territories were complex social and cultural constructions (for this point in connection with an even more important Northwest Coast resource, salmon, see Donald and Mitchell, 1994). In particular instances even the core of a group's territory might be entered by large numbers of people belonging to a several different local groups (each with their own "territory") for the purpose of exercising their right to exploit a particular seasonal resource at a specific locale within that territory. We need not nor should we retreat from the current interest in territory, but we need to reintroduce a concern with property if we are to more fully understand how phenomena like the traditional eulachon fishery worked.

A fundamental and classic observation about property is that it entails social relationships. In order to understand property concepts in a particular society, or cross-culturally, one must recognize that a property relationship is not merely a relationship between an "owner" [A] (A may be an individual or a group) and something that is "owned" [B]. Rather, a third element [C] is involved: all those who might own B. This gives us: A owns B against C (Hallowell, 1955 [orig. 1943]: 239, citing Cairns, 1935). We should also note that B is not necessarily a physical object. B may be instead a person or may be what Lowie called an incorporeal item (a song, a name, or knowledge, for example) (Rigsby, 1998: 23, citing Lowie, 1960 [orig. 1928]). Thus property relations are social relations between persons and property relations are one of the things that shape social life and structure relations between persons.

We can easily see that this describes the situation for the Northwest Coast eulachon fisheries. To take a specific example: A particular Mamalilikula Kwakwaka'wakw descent group, *T!ɛ́mɬt!ɛmɬɛls*, has the right to fish for eulachon at *ts!aɛ́'s* a particular spot at the head of Knight Inlet (Boas, 1934, map 22) and Boas (1921: 1347) suggests that members of the *T!ɛ́mɬt!ɛmɬɛls*, like other owners of eulachon fishing locales, would fight to prevent others from taking eulachon there. In the style of the previous paragraph, the *T!ɛ́mɬt!ɛmɬɛls* [A] own "the right to catch eulachon at *ts!aɛ́'s*" [B] against all non-*Tɛ́mɬt!ɛmɬɛls!* [C]. The *T!ɛ́mɬt!ɛmɬɛls* also have a right to reside at the Mamalilikula living site at the head of Knight Inlet, a place called *gwa'x̌sɛ́ɛ́ɛ*. This village is also the eulachon fishery residence of four other Mamalilikula descent groups who also have eulachon fishing rights at

other particular spots, all also very near their commonly held living site. But the right of the *T!ɛ'mɬt!ɛmɬɛls* to take eulachon at a particular locale and to live in a particular place nearby while they are doing so does not give them the right to take eulachon at other places at the head of Knight Inlet, nor do they appear to have rights to take salmon anywhere in Knight Inlet, to enter mountainous areas used for mountain goat hunting, to the viburnum (*Viburnum edule*—high bush cranberry) patches, or other kinds of berrying grounds that surround the head of Knight Inlet. Most of these can be identified as the property of one or another Tenaktak or Awaitlala descent group (Boas, 1934, map 22). That these other rights were taken seriously and defended can be seen in the account of the death of a Matilpi man (another Kwakwa̲ka̲'wakw local group whose descent groups have eulachon fishing rights at the head of Knight Inlet). The man left his wife to mind their canoe and went up into a mountain goat hunting territory near the head of the inlet after two mountain goats that he had seen there. The mountain goat hunting rights of that locale belong to a descent group of the Awaitlala. After a time his wife heard the sound of a quarrel and he did not return. Later he was found dead. This is recounted in *Ethnology of the Kwakiutl* as a typical example of what happens when men attempt to hunt in territories in which their descent group has no appropriate rights (Boas, 1921: 1345-1346).

And even though the *T!ɛ'mɬt!ɛmɬɛls* have the right to fish for eulachon at their eulachon place in Knight Inlet, this right (and the rights of other descent groups to fish for eulachon at their eulachon places in the same inlet) is constrained in an important way by another's right. No one could begin eulachon fishing until the leading titleholder of the Awaitlala (their "chief") had exercised his inherited right—"privilege" is the term used in the Hunt/Boas translation—to dip his net first (Boas, 1930: 204). This man did not merely dip his net into the water, he completed a ritual whose focus was ensuring that the eulachon returned year after year and that the fish would come into the soon-to-be-waiting nets. The ritual completed, general fishing could begin. So in this instance, one individual's ownership of the right to conduct a "first eulachon ritual" at Dzawadi constrained the exercise of various people's rights to exploit resource locales which they owned. In this instance the ownership of incorporeal property affects the way in which others exercise their rights over material property.

We have a relationship of A (a specific Kwakwa̲ka̲'wakw descent group) owns B (a specific eulachon fishing locale at Dzawadi) against C (all other kinship groups or individuals who might come to Dzawadi to take eulachon). We have also seen that any descent group's right to fish for eulachon at Dzawadi is constrained by the privilege of a particular titleholder to open the eulachon fishing season with a first eulachon ritual. For a more complete understanding of the situation we should also recognize that there is another important relationship involved in eulachon fishing: there was a relationship between those with a right to fish at a particular locale and what they had a right to fish for, the eulachon itself. We can see that this is the case from the prayers addressed to the fish when they are being captured. That these prayers were published in *The Religion of the Kwakiutl* may lead some to feel that we have muddled religion and economics, but our goal is not only to analyze Northwest Coast property concepts cross-culturally, but also to understand how property was understood by traditional Northwest Coast peoples and we should also recognize this aspect of the Kwakwa̲ka̲'wakw view of what eulachon fishing entailed. Similar views about the relationship between fishers and eulachon were held by the Tsimshian-speaking peoples as well for they held it necessary to follow exactly the appropriate method for processing oil from the fish. If they failed to do so "the fish will be ashamed, and perhaps never come again" (Boas, 1916: 45, quoting William Duncan writing in the mid-19th century).

In keeping with the general practice on the Northwest Coast, the rights were almost certainly held by descent groups or other kinship rather than by local groups. This is clearly the case among the Kwakwa̲ka̲'wakw for whom the best information can be found (Boas, 1934: 37). For example, in a detailed map, Boas (1934, Map 22) plotted trap and dip-netting locations at Dzawadi and identified a specific descent group with each. Analysis of these mapped rights discloses that of the 40 or so descent groups belonging to the nine local groups said to have assembled here, only 24 appear to have had fishing rights. This underscores the interpretation that descent groups and not local groups are the holders of rights. To further emphasize this distinction and the relative autonomy of descent groups, we can also note that while most members of the Nimpkish local group went to the Kingcome inlet fishery for eulachon (Duff, *ca.* 1965), one of their descent groups instead went to the head of Knight inlet where it had a fish trap and a dip-netting station (Boas, 1934, Map 22).

One important feature of a descent group's right to participate in a particular eulachon fishery should be stressed: the right to fish for eulachon did not imply rights to obtain other resources within the host group's territory. The various non-Nisga'a descent groups who

came to the Nass to take eulachon returned to their own areas to fish for salmon, for example, and we have earlier listed restrictions in force for visitors to Knight Inlet.

Yet it should also be pointed out that certain other "rights" came along with the right to take eulachon: the right to put up dwellings nearby for the duration of the fishery and the right to collect sufficient firewood for the processing of oil or drying of fish and for domestic purposes, to mention two. Dwelling areas at least were not randomly situated each season. We know for both the Nass, Kitlope, and Dzawadi that descent groups were traditionally identified with specific fishing spots and camping areas.

The most notable thing about the property regime in effect at the five larger eulachon fisheries about which we have clear information on who had rights to the fishery (the Nass, Kitlope, Dzawadi, Kwae, Squamish, Fraser) is that kinship groups who did not belong to the local group in whose territory the fishery occurred, had rights to participate in the fishery. In the case of the Kitlope and Nass fishery these "extra-territorial" groups even included some belonging to different ethnolinguistic groupings than that of the "host" community. How did such visitors obtain and maintain their rights to participate in the eulachon fishery? Why did their hosts allow/tolerate such participation?

The nature of the resource suggests at least a partial answer to the last of these questions. As we have seen, the eulachon spawning runs were so great in a few streams that even after the resident local group had caught and processed all the fish it could, enough were left for many others to obtain a good supply as well.

A resident local group or a few neighbouring local groups still might have attempted to exclude all outsiders from their fishery. Eulachon oil was a highly desired and very valuable trade item. Successfully restricting access would have reduced the amount produced and reduced the number of kinship groups who could produce their own, thus increasing demand for what was produced by a resident local group, in effect "raising the price" of the oil entering the trade. But defending a resource from others entails costs. Given the nature of the spawning areas (largish stretches of a river or inlet that could not be easily "fenced off") and the substantial numbers of fish, the costs of exclusion were probably too great to make such a defence practical. This did not mean, however, that a particular fishery was organized as an "open access" resource. Fishing was not "open to all," but only to those kinship groups who had acknowledged rights to a place for catching eulachon at a particular fishery. Taking the Nass fishery as an example, we can note that, although a few Tlingit groups did have eulachon fishing rights, most of the Tlingit and all of the Haida who arrived at eulachon season, came solely to trade, for they had no acknowledged eulachon fishing rights on the Nass. So "hosts" tolerated "visitors" on the eulachon grounds if they had a publicly recognized claim to a eulachon fishing locale in part at least because the cost of excluding them would have been too high—potentially annual warfare just when all available hands were needed for the fishery—and in part because widely held notions of property and ownership recognized that groups could hold rights to a resource in a variety of locales, not all of which had to fall within a conventionally bounded territory.

This brings us to our other question: How did a group obtain and support their rights to participate in an eulachon fishery? Although there is little direct information on the subject we suspect that groups maintained their rights largely by using them on a regular basis and by being prepared to fight any and all who attempted to prevent them from using their rights to a particular resource locale. The Kitkatla leader Tsibasa's reaction when he felt that his right to fish for eulachon at the Nass was being called into question is probably representative.

> The Nishga are disputing my right to come here for eulachons or to make oil. They say we have no right to come here for eulachons or to make oil. They say we have no right to come to our grandfathers' village here. Many of our ancestors were born here. Many of them furnished their initiations here. Many even had great feasts here, where they assumed their chief names and rank, and many of these Nishga are still in debt to some of our dead chiefs. Yet they say we have no rights here. (MacDonald and Cove, 1987: 191)

There were a number of ways in which a group might obtain the right to use a resource locale. For most Northwest Coast societies, acquisition of rights and privileges resulted from marriage transactions or came through inheritance, gift, or seizure—the latter by killing the current owner. Inheritance would usually keep property within the kin group, but as lines died out, rights could pass to more distant relatives who were members of other kin groups and even other local groups. Tlingit (De Laguna, 1990: 213) and Tsimshian (Halpin and Seguin, 1990: 274) are expressly reported to have transferred resource properties as a part of marriage arrangements, as potlatch gifts, or in payment of debts. So there were several means by which "outsiders" could have gained the right to participate in a valuable eulachon fishery.

The data known to us do not include any transfers of an eulachon fishing locale. All of the sources merely describe those possessing rights to a locale as if these rights had been long held and had been transmitted from generation to generation by inheritance although at least the concept of transferring by gift is indicated by McIlwraith (1948I: 384) who wrote that the Kimsquit right to use a portion of the Kitlope River "for their olachen nets" stemmed from a gift at the beginning of time. In the quote above, Tsibasa gives this ancestral connection clear expression, asserting ancient hereditary status to his group's place at the Nass fishery. In the case of the Kitkiata—the most distant Coast Tsimshian group to make use of the Nass river runs—Drucker (1950: 160) wrote, "Coming originally from the lower Skeena (in early legendary times), they retained ownership rights in the olachon grounds at the mouth of the Nass, journeying there every spring and returning in time for the salmon run in their own territory." A few southern Tlingit groups also participated in the Nass fishery. Many Tlingit descent groups traced their origins to the area between the Nass and Skeena Rivers (De Laguna, 1990: 205-206). They either migrated north into historic Tlingit country or were pushed north by incursions of Tsimshian-speakers. Either way the retention by a few Tlingit groups of rights to participate in the Nass eulachon fishery suggests that they may have been able to maintain their ancient rights to this highly desirable resource (or alternatively these rights may have been obtained or re-obtained by means of marriage transactions).

Given the lack of formal political organization in this area one might ask how groups could enforce their claims and insure that others accepted them. Force could be threatened and certainly was resorted to at times, but less violent means of obtaining recognition were more frequently employed. As is well known, inter-group feasting (including so-called potlatches) was very important throughout the area. As hosts and guests at such events, leaders kept their (and their kinship group's) claims to a wide range of rights and privileges before an audience of their peers. By accepting the role and place that a particular titleholder took in a feast other titleholders and their followers acknowledged that titleholder's claims to property and privileges of all types, including their eulachon fishery rights.

Conclusions

One way to view the assemblies would be as manifestations of what Suttles (1968) termed Northwest Coast societies' attempts at "coping with abundance." In a normal year the eulachon run into these spawning areas was enormous and the time during which the eulachon were available for capture was relatively short. There were more fish for the taking than a single local group or even a few neighbouring local groups had the labour power to catch and process in the time available. Without the aggregations, left to what the local residents could catch and process, the major part of each years's run would go unused. When "outsiders" gain access to the fishery, the output increases and a much larger portion of the resource is used by the regional population. Although large, the eulachon runs were not inexhaustible and the numbers of fishers they could support was not without limit. And, as we have seen, the resource was not open to all.

In conclusion, we would highlight the following points:

1. At the larger eulachon spawning grounds many people (thousands at the largest) from a number of different local groups gathered to fish. In spite of this size and the diverse affiliations of the participants, there was no formal political organization or structure controlling events at any of these fisheries.
2. While one can identify territories associated with local groups, they were not highly bounded and some "outsiders" might have rights to use rich resource locales (such as eulachon spawning grounds) within territories not their own. What was owned was the right to fish for eulachon at a particular portion of the fishing grounds. The fish themselves were not owned. Rights to fish for eulachon did not necessarily carry with them rights to other important resources in the same area.
3. These large gatherings, which were not political units, and the coming together of people from several local groups were possible both because of the character of the eulachon itself and the nature of the spawning locales *and* because long term relations among members of the elites of various local groups (marriage, feasting) provided mechanisms of dispute settlement and claim recognition.
4. Groups with rights to eulachon sites not only had property relations with other groups (A owns B against C), but also had a relationship with, and attendant obligations of respect to, the eulachon itself.

Notes

1 A version of this paper was presented in October, 1998, at the 8th International Conference on Hunting and Gathering Societies, in Osaka, Japan. Sandra Peacock provided help in tracking down information about the nutritional properties of

eulachon and Ken Josephson of the University of Victoria's Department of Geography located a suitable computerized base map for one of the text figures and provided technical assistance with the maps. We have benefited from suggestions and specific information provided by Bruce Rigsby, Yvonne Hajda, and Robert Boyd. Data on which this paper is based were collected over a number of years as part of a larger project focussing on intergroup contact on the Northwest Coast. That research was supported by the Social Sciences and Humanities Research Council of Canada, the Province of British Columbia's Youth Employment Programme, and the University of Victoria Committee on Faculty Research, Leave and Travel.

2 A *local group* is the social unit whose members traditionally assembled to pass the winter at a common village site. Local groups were the largest politically autonomous units of traditional Northwest Coast society. Each was comprised of several kinship groups—matrilineal on the north coast, cognatic elsewhere—which for much of the year and in most matters themselves had a great deal of autonomy.

3 The estimates for the numbers of people present at particular eulachon aggregations are based on calculations which begin with what seem to us to be the best of the conservative estimates of the size of the contact populations of the various ethnolinguistic groups belonging to the culture area, which are those of Robert Boyd (1999: 264-265). For a particular ethnolinguistic group the total population is parceled out among its constituent winter village communities in terms of what we know about their relative size at contact. Where the sources make such adjustments possible, account is then taken of probable participation rates among the communities that went to a particular aggregation. Recognizing the fragmentary nature of the data we have to work with, we have used both a relatively high and a relatively low participation rate for each community. When the probable numbers from each winter village travelling to a particular eulachon fishery are added together we get the ranges given in the text. They have been rounded to emphasize that they are estimates. Perhaps the most important thing about these calculations is that they are consistent with various claims in the historic and ethnographic sources that large numbers of people gathered at the most important eulachon fisheries.

4 The unusually quarrelsome character of the Nass fishery in early post-contact times (virtually all the numerous accounts of feuding involve use of firearms) seems to have developed when a technological innovation made a productive harvest less accessible to some groups. For ease of setting and emptying, the distinctive bag net trap was best used in open water, such as was available to the Kitkatla whose camping location was on the estuary of the Nass. This group could begin fishing at the first appearance of the eulachon, while the fishing grounds of those situated further up river were still covered by ice, and sometimes remained so for almost the entire season. Beynon (MacDonald and Cove, 1987: 191) recorded the details of a dispute between the Nisga'a and the Kitkatla that expressly arose from these circumstances.

5 People gathering at the three best-described eulachon fishing aggregations (the Nass, Kwae, and Dzawadi) did not form political units nor indeed, common sets in any other known context. They did not act in unison at other times. There are not even corresponding aggregations of winter village groups, because, as we have seen, not all descent groups held eulachon-fishing rights and, at least for the Nimpkish Kwakwaka'wakw, different descent groups had rights to participate in two different eulachon aggregations.

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