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TLEIKW AANÍ, THE "BERRIED" LANDSCAPE: THE STRUCTURE OF TLINGIT EDIBLE FRUIT RESOURCES AT GLACIER BAY, ALASKA[1]

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ASTRACT.– This paper analyzes the structure of a relatively neglected resource in Tlingit and Northwest Coast ethnology: berries. Historically, like salmon streams and other key resource areas among the Tlingit of Southeast Alaska, prime berry patches were named, owned, managed, and celebrated as places. Certain berries, including those found in the vicinity of Glacier Bay National Park, were recognized as being of exceptionally high quality and abundance. Glacier Bay berries were internationally renowned, widely traded, and comprised an important nutritional component of the diet and symbolic element in ceremonial feasts. Maintaining the productivity of prized berry patches involved a variety of techniques and strategies to control supply and demand and thus avoid shortages. Despite National Park Service restrictions on hunting and fishing in Glacier Bay, berry picking remains an important communal subsistence activity in the park—one relatively free from controversy and competition—that continues to bind modern Tlingit groups to their ancient homelands.

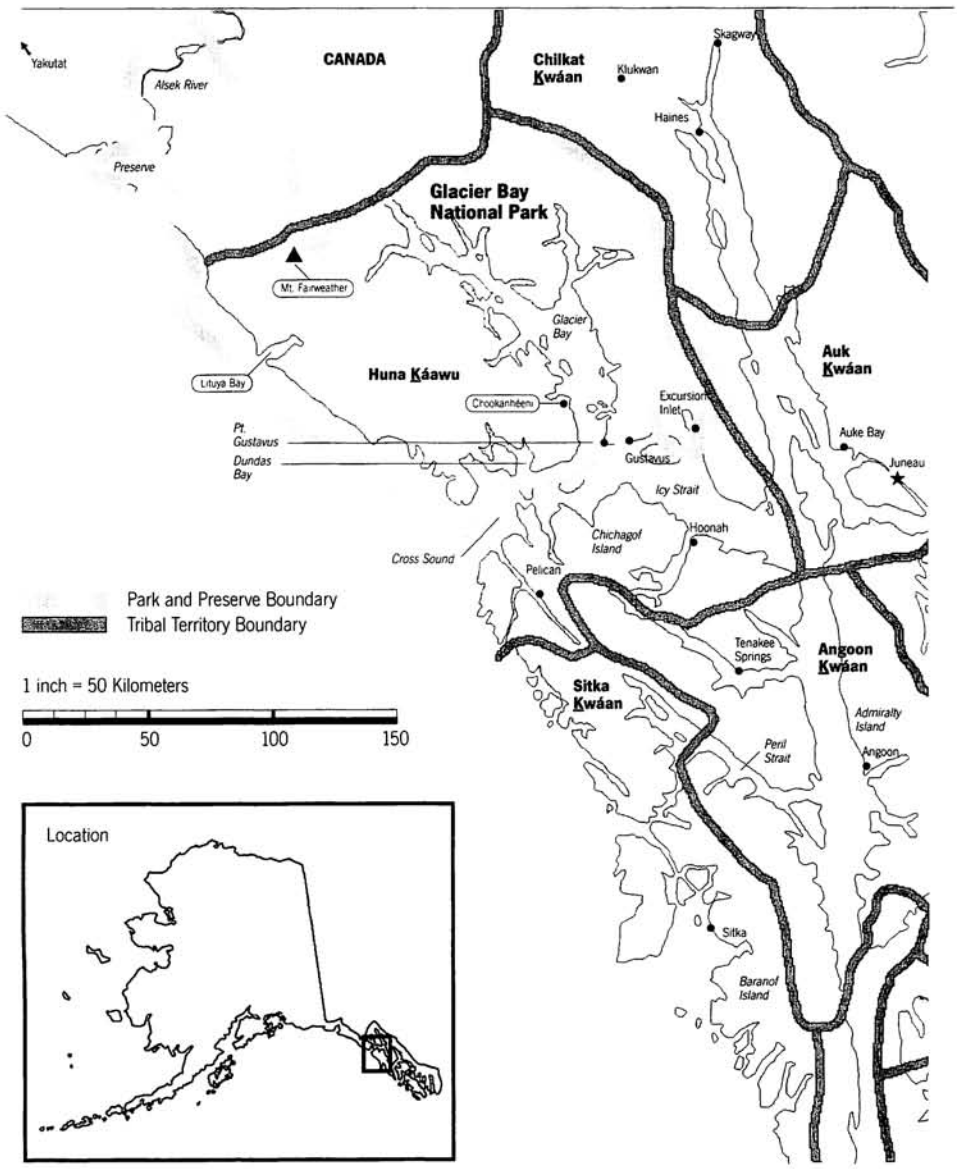
Key words: Tlingit, berries, traditional knowledge, ethnogeography, subsistence

RESUMEN.–Analizo la estructura de un recurso algo descuidado en la etnografía de loso Tlingit y otros grupos indígenas de la costa noroeste de Norteamérica: las bayas. Historicamente, igual que los riachuelos de salmon y otras áreas de recursos claves entre los Tlingit del sureste de Alaska, bancales excelentes de bayas se nombraban, poseían, manejaban, y celebraban como lugares. Ciertas bayas, incluso esas encontradas alrededor del Parque Nacional de Glacier Bay, se reconocían de calidad y abundancia excepcional. Las bayas de Glacier Bay eran renombradas internacionalmente, trocadas por todas partes, y comprendían un importante componente nutricional del dieta y un elemento simbólico de fiestas ceremoniales. El mantenimiento de la productividad de mancales primeros de bayas exigió una variedad de técnicas y estratégias para controlar la oferta y demanda y por eso evitar insuficiencias. A pesar de restricciones del Servicio del Parques Nacionales en la caza y pesca en Glacier Bay, la recolección de bayas se queda una importante actividad comunal de subsistencia en el parque–una actividad relativamente libre de controversia y competencia–que siga atando a los grupos Tlingit de hoy a sus tierras antiguas.

RESUMÉ.– Ce papier analyse la structure socio-écologique d'un produit très important mais peu connu parmi éthnographes des indiens au nord-ouest d'amérique: les baies. Comme des ruisseaux de saumon et d'autres sites de subsistence chez les Tlingit, les parcelles de baie étaient nommées, cultivées, et célébrées comme lieux de mémoire. Certains baies de meilleur qualité étaient abondants, même ceux à Glacier Bay. Traditionellement, une diversité des techniques et des stratégies avait été utilisé de garantir le productivité des parcelles

de baie les plus estimés. D'Autrefois, des baies de Glacier Bay, rénommés de tous pays, servaient d'un moyen d'échange et comprenaient un rôle très important dans la nourriture quotidienne et dans les fêtes cérémoniaux. Aujourd'hui, malgré la réglementation de la chasse et de la pêche à Glacier Bay par le National Park Service, on y continue à cueillir des baies comme une activité de subsistence très importante. Exempt de grand débat politique ou d'intérêt commercial, la cueillette de baies continue à lier les Tlingits moderns à leurs pays anciens et traditionels.

Figure 1: Glacier Bay National Park and Huna Tlingit Territory



INTRODUCTION

"Today as I talk I see my grandfather on that beach, I see my uncle. I see them all because that's where they were in love with. And I can't help but place my love there because it provided for them, like an icebox"– Richard Dalton, Huna Tlingit T'akdeintaan leader, at his homeland, Dundas Bay, in Glacier Bay National Park, 1996 (Thornton 1998).

The Tlingit of southeastern Alaska use a number of related metaphors to depict the role of Glacier Bay National Park in their economy. The Park comprises a significant portion of northern Tlingit territory (see Figure 1), while most of the rest of Tlingit country lies in the Tongass National Forest, the largest temperate rain forest in the U.S. In English Glacier Bay has been described by Huna Tlingits (whose present day village, Hoonah, contains many of the descendants of the original inhabitants of the bay) as their "storehouse," their "icebox," their "refrigerator," even their "breadbasket" (cf. Goldschmidt and Haas 1998:54,131). These seemingly anachronistic container metaphors are consciously employed by these traditional hunter-gatherers to convey to modern Euro-American audiences the importance of Glacier Bay as a vital source of food. In this sense, they stand in stark contrast to the dominant Euro-American metaphor of Glacier Bay as a wilderness landscape, a pristine park that is uninhabited and unspoiled by human intrusions.

Are there analogs to these container metaphors in Tlingit language and culture? Our ongoing research on indigenous place names in Glacier Bay (Thornton 1995) suggests that there is at least one correlative image: Glacier Bay as the "Big Dish." This metaphor derives from a subregional place name, ***S'ix' Tlein***[2] ("Big Dish"), which refers to the lower reaches of Glacier Bay and to Icy Strait, the waterway which feeds the bay and which Huna Tlingits have traversed for centuries to reach their "icebox." According to Tlingit etymologists the moniker springs from the fact that this region is so rich and bountiful in resources that it "supplies all of our food." For some interpreters, there is also the sense that it is a shared dish, like the traditional feast dishes of yore, which could approach the size of a small dugout canoe, and were filled with more than enough food to supply all of the guests at a large memorial feast, or potlatch.[3] In modern Tlingit, these dishes are referred to as ***Gidjidwan s'ix'***, or King George dishes, an obvious post-contact term.

But, unlike refrigerators and iceboxes, feast dishes are deeply rooted in Tlingit culture. In addition to serving as repositories for great gifts of food proffered by host clans to their guests at ceremonies, their contents also communicated important cultural values, such as wealth and generosity (cf. Kan 1983, 1989:209).

Among the most important foods to be served at any winter ceremonial were berries. There is a point in every memorial potlatch, the central ritual of the Tlingit which completes the cycle of mourning for the deceased, where gifts are distributed to guests as thanks for their attendance and participation in the healing and bolstering of the host clan. Traditionally among the most celebrated of gifts were heaping quantities of berries, especially bearberries, blueberries, huckleberries, nagoonberries,[4] salmonberries, soapberries, and strawberries (see Table 1) that had been preserved (typically through drying) and were served with fish oil or

seal grease in huge feast dishes. Always the last to be served and the most esteemed were the whipped soapberries, or "Indian ice-cream"(de Laguna 1972:409-10; Emmons 1991:309; Jacobs and Jacobs 1982; cf. Kuhnlein and Turner 1991:162; 'Ksan 1980), the spectacular multiplying effects of which were a climax of the ceremony. Ritual protocol calls for the hosts to honor prominent guests by providing them with a large feast dish brimming with fruit and then formally inviting them to eat it ***du xwaa x'utín*** (translated as "with pals and buddies"). In this way the honoree and his family and friends are "recognized" and compensated for their role in the ritual cycle. The guests, in turn, respond by acknowledging the gift with rousing thanks and then immediately emptying the dish of its contents.[5]

Some Northwest Coast ethnographers (e.g., Codere 1950 on the Kwakiutl; Olson 1967 on the Tlingit) emphasize the competitive and rivalrous flavor of this potlatch feasting and its relationship to the hierarchical sociopolitical structure of Native Northwest Coast societies. But others have demonstrated that the emotional, communal, and healing dimensions of the ritual consumption are just as important (cf. de Laguna 1972; Kan 1989). Certainly both elements are present. Traditionally, according to Emmons (1991:309), those that "ate the most, however sick it might make [them], honored the host the most." At the same time, the feasting never fails to bring levity and good feelings to an occasion that to this point has been solemn and formal. We get a sense of this from Albin Johnson's (1924, in de Laguna 1972:410) description of the distribution of soapberries at an early twentieth century potlatch in Yakutat, a Tlingit community just north of Glacier Bay National Park.

> At the big potlatch feasts the best dishes are made from these berries. A large tray is employed, fill it half with water, and mix in a piece of the above-mentioned cakes [dried soapberries]. Two young men work the mush till the foam flows over the edges, beautifully rosy red, and then the tray is carried around to the feasting crowd. Everyone presses in the direction of the tray in order to grab a handful of the 'ice cream.' In this way each one is given a chance to taste the dish as long as it lasts, which is not very long. These berries are not delicious, but bitter, and they are eaten mainly according to old custom and because of their beauty.

Thus the presentation of the berries and communal feasting on the summer fruit are linked symbolically not only to the negotiation of status between hosts and guests, but to the raising of peoples' emotions and communal spirits after a wintry period of death.[6] So important are the symbolic values of berries in this alimentary communion-at least in the case of soapberries-that they transcend matters of taste.[7]

Berries also were said to "hold" or represent the landscape from whence they came and thus symbolized Tlingits' material, social, and spiritual ties to the lands that nurtured them. Thus, the spirit of a deceased descendant of Glacier Bay would be especially honored if berries from his homeland were served at his memorial. This organic connection between the deceased and the fruits (or other foods) of the potlatch might even be woven into the ritual oratory that graced the proceedings. These links endure today in potlatches, and though non-local fruits, such as

apples and bananas, are sometimes substituted, Native berries are still preferred for their taste and symbolic values.

As with other key Tlingit resources, such as salmon, halibut, herring, deer, shellfish, and seals, there is a great deal of traditional ecological knowledge surrounding berries. Acquiring large quantities of berries for sustenance and ceremony demanded an intimate knowledge of local habitats, effective organization of labor for harvesting and processing the fruits, as well as some practical measures for controlling the supply and demand of berries. Berries, after all, are the quintessential "patchy" resource (cf. Winterhalder and Smith 1981), and landscapes that possessed abundant and predictable quantities of berries were treated as hereditary property by matrilineal clans and their sub groups (houses), the central units of Tlingit social structure (Emmons 1991:151). Indeed, the matrilineal clan-based social organization provided the basis for acquiring and maintaining berry patches, transmitting traditional knowledge about berrying, organizing labor for harvesting and processing, and, finally, for distributing the resources through sharing, trade, and ceremonial networks. A few special places, like Dundas and Glacier bays within Glacier Bay National Park, were productive enough to earn the nickname ***Tleikw Aaní***, "Berry Land," and were known throughout Tlingit country and beyond. These berry patches were not only owned and defended but celebrated and even cultivated by means of ***heixwa***, or "magic," and other techniques believed to enhance productivity.

Although Glacier Bay berries are exceptional by Tlingit measures, it is clear that other edible berries and productive berry patches were similarly esteemed and exploited by other Native peoples throughout western North America. In this sense, "the berried landscapes" of Glacier Bay offer an excellent case study for examining the structure of a relatively neglected but key dietary, economic, and symbolic resource among Northwest Coast Natives. After describing the historical development and conceptualization of Glacier Bay berry patches as landscapes among the Tlingit, this article analyzes the structure of berries as non-human persons and "renewable" resources among the Tlingit and other indigenous peoples of the Pacific Northwest. The article concludes that selected berries in Glacier Bay were cultivated and managed and that these resources continue to be an important cultural tie to the area today for local Tlingits.

THE "BERRIED" LANDSCAPE

> *"Glacier Bay is the best place for berries."*– Richard Sheakley, late leader of the Tlingit, T'akdeintaan clan, which claims parts of Glacier Bay National Park. (Thornton 1998)

Tlingits harvested wild fruit from a wide range of plants, many of which thrive in Glacier Bay. These fruits are popularly known as berries. In addition to being a major source of sugar and carbohydrates for the pre-contact indigenous peoples, berries contained other important vitamins and minerals, including vitamins A and C, calcium, iron, niacine, riboflavin, and thiamine, many of which were lacking in other foods (see Norton 1981; Newton and Moss 1984:23, 41; Kuhnlein and Turner 1991). Like other prestigious Native foods, Tlingit report "craving" these

berries, especially during the spring and summer. Even berries considered to have a bland, bitter, or sour taste were coveted and often were rendered palatable by combining them with other foods (see Thornton 1998).

Aside from the edible fruit, Tlingits valued other parts of the plants. The leaves of berries, ***kayaaní***, were also consumed and considered to be a vital sign of spring and a potent "spiritual"medicine. At one time, bearberry leaves were smoked as tobacco, and other berry leaves were used to make teas. The roots and stems of berry plants generally were not used, although the shoots of young salmonberries (and, less commonly, thimbleberries) were an esteemed early spring supplement to the diet (Emmons 1991:151). The term ***kayaaní*** is a synonym for medicine in Tlingit. Shamans, in particular, were trained in the arts of ***kayaaní*** and could harness the power of plants to promote healing, awareness, strength, affection, and other ends, including changes in weather. It could be dangerous for one without knowledge of these arts to pick or handle plants casually or to introduce them into new settings.[8] Although much of this traditional knowledge is lost today, many elders, especially elderly women, are still familiar with the medicinal qualities of plants (Thornton 1998).

TABLE 1.– Berries Commonly Harvested at Glacier Bay National Park with Seasonality

Common Name	Tlingit Name	Scientific Name	Spring	Summer	Fall
BERRIES	tléikw		x	x	
Bearberry (kinnikinnick)	tínx	Arctostaphylos uva-ursi	x	x	
Blueberry, (generic and oval-leaved)	kanat'á	Vaccinium ovalifolium	x		
Blueberry, Alaskan (ripens later)	naanyaa kanat'aayí	Vaccinium alaskaense	x	x	
Blueberry, bog	ts'éekáxk'w	Vaccinium uliginosum	x	x	
Blueberry, dwarf	kakatlaax	Vaccinium caespitosum	x		
Cloudberry, yellow	néx'w	Rubus chamaemorus	x		
Cranberry, bog	k'eishkaháagu	Oxycoccus microcarpus	x	x	
Cranberry, highbush	kaxwéix	Viburnum edule	x	x	
Cranberry, lowbush (ligonberry)	dáxw	Vaccinium vitis-idaea	x	x	
Current, gray	shaax	Ribes bracteosum		x	x
Current, swamp	kaneilts'ákw	Ribes lacustre	x	x	
Elderberry, red	yéil'	Sambucus racemosa	x		
Huckleberry, red	Tleikatánk	Vaccinium parvifolium	x		
Nagoonberry	neigóon	Rubus Arcticus	x		
Raspberry	tlekw yádi	Rubus idaeus (R. pedatus)	x		
Salmonberry	was'x'aan tléigu	Rubus spectabilis	shoots	x	
Soapberry	xákwl'i	Sheperdia canadensis		x	
Strawberry, seaside	shákw	Fragaria chiloensis		x	
Thimbleberry	ch'eix'	Rubus parviflorus	shoots	x	

Table 1 shows the berries that are found in abundance in Glacier Bay National Park and Preserve and the seasons of harvest by Tlingits from Hoonah and neigh-

boring communities. In most areas of Southeast Alaska, salmonberries were the most abundant species and the first to be harvested, usually in July. Not surprisingly, the general term for berry is associated with this fruit. Blueberries, cranberries, gray currents, huckleberries, and thimbleberries were also common and could be found on both the islands and the mainland. In contrast, other fruits, including bearberries, nagoonberries, soapberries, and strawberries were largely confined to the mainland (with a few well-known exceptions), making them a desirable commodity for trade to the islands. Glacier Bay was known to be the best source of these mainland berries in Northern Southeast Alaska, and some species, such as soapberries and nagoonberries, were traded internationally as far south as Haida country (cf. Norton 1981).

Historical Ecology.– While Alaska as a whole is renowned as a land of berries, Glacier Bay is a uniquely productive environment for these plants. Both natural and human circumstances have contributed to Glacier Bay's emergence as a coveted berry picking site.

Because of its unique geologic history, Glacier Bay has emerged as particularly productive habitat for berries. Like the bay itself, the plant life in Glacier Bay has been shaped largely by the forces of glacial advance and recession. Just two hundred years ago, in 1794, when George Vancouver's pioneering expedition ventured into Icy Strait, they found nothing but a massive wall of ice and a small bight at the mouth of Glacier Bay. Yet, within the two centuries, a geological instant, this bight has grown to be one of the largest, richest and most dynamic ecosystems within Southeast Alaska.

By the time John Muir arrived in 1879, seeking to understand the dynamics of glaciation, the ice had retreated nearly 50 miles and plants and other species had begun to re-inhabit the land. As he made his way up the bay, Muir (1895) observed the succession of plants in reverse, beginning with the maturing forests of alder and spruce at the mouth and regressing back to the newly uncovered rock and rubble at the foot of the retreating glacier. In between was a rich array of edible plants, including a variety of berries. While newly exposed areas revealed only sand and rubble, berry plants were among the first to return to the sandy soils, making use of the bed laid down by algae and mosses. Tlingit oral history and recent scientific studies of the interstadial forests in the upper reaches of Glacier Bay suggest that the process of plant succession has been repeated at least several times in Glacier Bay. Each time the mature forest was leveled and cleared by glacial advance, only to be exposed again in the subsequent retreat as flattened forelands primed for succession. Two major warming periods-one between 10,000 and 4,500 years ago and the other from 1750 to the present-have each produced habitat conditions stable enough for berry lands, forests, animals, fish, and, therefore, people (cf. Ackerman 1968; Powell 1995, Thornton 1995).

Combined with other features of the landscape, such as well-drained soils, and comparatively favorable exposure to sunlight, these conditions made Glacier Bay an ideal habitat for bearberries, gray currants, nagoonberries, soapberries, and strawberries. With few exceptions, these resources are not found in comparable abundance elsewhere in Tlingit territory, and in some cases were rare. In contrast, the major varieties of blueberries and salmonberries, otherwise the most

common and evenly-distributed of the Tlingit fruits, were not exceptionally productive in Glacier Bay due to their habitat preference for damp woods and moist clearings. These habitat distinctions are reflected in the Tlingit ethnogeography of the Glacier Bay region, and the relative patchiness of key berry resources had important implications for the structure of the foods in the Tlingit economy.

Ethnohistory and Ethnogeography.– Precisely when the human inhabitants of Glacier Bay began to harvest berries is a matter of some speculation. Archeological and ethnohistorical records suggests at least a punctuated human presence in the Glacier Bay area dating back nearly 10,000 years (Ackerman 1968). It is likely that the earliest inhabitants utilized available patches of berries during their initial occupation of the area and took advantage of new concentrations of berries that emerged as the result of succession following glacial retreats. Significantly, elements of the archeological and geomorphological records correspond with Tlingit oral history (cf. Powell 1995; Thornton 1995;).

Tlingit history relates that Glacier Bay was settled originally by what are today four distinct matrilineal clans of two reciprocating moieties: the Chookaneidí ("People of ***Chookanhéeni***" or "Beach Grass Creek," a reference to Berg River / Bay), the Kaagwaantaan ("People of the Burned House"), and the Wooshkeetaan ("People with Houses on Top of One Another") of the Eagle/Wolf moiety; and the T'akdeintaan ("People of the House Toward the Side" [of a particular island on the Outer Coast of Glacier Bay National Park]) of the Raven moiety. A fifth group, the Kuyeikeidí ("People of ***Kuyeik***'" [Excursion Inlet]), also of the Raven moiety but now extinct (or perhaps transformed into the Lukaax.ádi of Haines as suggested by Emmons [n.d.]), reportedly dwelled at Excursion Inlet.[9] All of these groups take their names from landmarks or settlements in the vicinity of Glacier Bay. The Eagle groups were said to have migrated to Glacier Bay from the Interior—via the mainland rivers, braving treacherous ice dams on their descent—while the Raven groups trace their origins to the coast (cf. Swanton 1908; de Laguna 1972). Oral histories from these clans suggest that there has been at least one major advance and retreat of the ice during their occupation of Glacier Bay, perhaps corresponding to the so-called "Little Ice Age" which began some 900 years ago and ended around 1750.

These clan histories and stories reflect the deep ties and organic relationships between these Tlingit clans and their homeland. They recall how events happened in the lives of the groups' ancestors, how they came into being and how they evolved at certain places. The narratives themselves are sacred property, or *at.óow* (literally, "owned things") and typically reference other sacred property of the clan, such as crests, spirits, songs, names, and various elements of the geography, which are also considered ***at.óow*** (cf. Dauenhauer and Dauenhauer 1987:14-17). The most vivid account of dramatic glacial shifting in Glacier Bay is contained in the Chookaneidí story of Kaasteen, several versions of which have been published (Dauenhauer and Dauenhauer 1987:245ff; Culp, et al 1995). In this story the young Chookanshéa (Chookaneidí girl), Kaasteen, violates her prescribed seclusion at menarche by communicating to a glacier, which responds by advancing rapidly, thus destroying the settlement in the bay, claiming the life of a Chookaneidí woman who remains behind, and forcing the exodus of the Tlingit from Glacier Bay.

Place names provide another important index of the natural and cultural history of Glacier Bay (Thornton 1995, 1997a, 1997b). Both the Tlingit and English toponymies shed light on Glacier Bay National Park and Preserve as berry habitat. While most berrying locales are not identified as such by their names, semantic references to berries do occur in both sets of place names. In all cases these references are based on metonymic associations, wherein a part of the environment-the berry—comes to stand for the place as a whole. Thus, in English we have Strawberry Island and Strawberry Point (a.k.a. Point Gustavus), examples of metonymy based on the salient prevalence of this resource at the site. Similarly, the Tlingit also reference Point Gustavus as "Strawberry Point" (***Shaakw X'aayí***), though the feature is more commonly known as ***S'e X'aayí Lutú*** ("Clay Point"). Interestingly, while it is sometimes referred to as ***Shaakw X'aat'í*** ("Strawberry Island), the original Tlingit name for Strawberry Island is ***L'eiw X'áat'i***, or "Glacial Sand Island," indicative of the island's habitat at an earlier stage of succession, prior to proliferation of strawberries.[10] Another example from the Tlingit is ***Tínx Kayaaní***, literally "Bearberry Leaves" from the bearberries that dominate this Alsek River landscape, which were used in traditional Tlingit tobacco and medicine and gathered in conjunction with the berries themselves. In addition to these well-known place names there are also regional nicknames, such as the aforementioned ***Tléikw Aaní*** ("Berry Land"), applied to Dundas Bay and sometimes to the lower portions of Glacier Bay, or ***Shákw Aaní*** ("Strawberry Land"), given to the area between Gustavus and Point Gustavus.[11]

All of this suggests that, from a Tlingit perspective, the shores of Glacier Bay National Park were "berried" landscapes. The ethnogeography and ethnohistory of the region emphasize the significance of berries as a salient presence on the land and corroborate the ethnographic reports detailing Tlingits' strong cultural interest in these plants. Now we turn to a closer examination of the structure of the resource in the traditional social economy from an ethno-ecological and universalist perpective.

THE STRUCTURE OF A "RENEWABLE" PLANT RESOURCE

Despite being recognized as "the most important plant food" (de Laguna 1972:407) and, with salmon, "the staff of life" (Niblack 1890:276) among Natives of the region, berries, like other "gathered" resources (see Moss 1993), have not been the subject of significant anthropological inquiry among the Tlingit.[12] Yet, as an economic resource, berries have much in common with other patchy resources that were hunted and fished. Like the well-studied salmon (cf. Schalk 1977), for example, berries are not only patchy in space but also in time, and their "arrival," like the "return" of the salmon, is subject to a great deal of variation, depending on weather and other factors. We also find that different species of berries, like the five species of Pacific salmon, occur at different frequencies throughout the region, and that each species is valued according to culturally defined criteria, such as taste, aesthetics, and preservation qualities.

Data from throughout the Northwest Coast show that patches of edible plants were not only named and owned but burned, replanted, and weeded, suggesting intentional conservation and resource management (see Norton 1981:435; Turner

1991; Johnson Gottesfeld 1994). If we define conservation and management as *effective practices by humans to ensure a sustainable supply of a resource*, then Tlingits can be said have conserved and managed berries.

However, it can be misleading to think of Tlingit conservation solely in terms of Western ideologies of resource conservation, because, as we will see, Tlingit ideas about the nature of plants stem from a different environmental ideology and worldview.

The Ethno-Metaphysics of Berries.– To assess the value of any food or other resource within the economy of a people, we must evaluate not only its material contribution to the economy but also the metaphysical nature of the resource from an indigenous perspective. For as Hallowell (1955) suggests, cultural beliefs about the nature of any element of the cosmos ultimately help to shape the "behavioral environment" in which individuals act. As a consequence, the ethnographer cannot assume, ethnocentrically, that berries are inherently less animated or potent than creatures that run or swim or have teeth, for an investigation into the ethnometaphysics (Hallowell 1976 [1960]:358) of the resources may reveal that they are not lesser in these respects and that they require comparable levels of knowledge and technique for successful harvest.[13] This is the case among the Tlingit, and in this sense berries may be said to constitute a "salient presence" on the landscape beyond passive foodstuffs—as members of a non-human community of beings. Hence we find that berries are personified in narratives and other cultural forms.[14]

A key aspect of Tlingit metaphysics is that the universe itself is a community of living beings which have inner forms (spirits or ***yeik***) as well as outer forms, all of which (including plants) had to be treated with respect. If plants and animals were not shown proper respect, they would cease to make themselves available to, or in some cases even harm, humans. To violate prescriptions for interacting with various elements of the cosmos was considered ***tligaas*** or taboo—literally "against nature" (cf. Swanton 1908; de Laguna 1972). Combined with other practices of controlling supply and demand of berries, these beliefs and customs can be said to constitute a framework for the conservation and management of resources.

Traditional knowledge concerning the nature of berries is embedded in Tlingit oral history and environmental knowledge that has been passed down from generation to generation. The cultural value of berries is reflected, for example, in the famous Raven cycle of stories, perhaps the oldest and most widespread corpus of narratives, wherein the Trickster bird throws lavish parties featuring fresh berries saturated in seal and fish oils. In one story, the ever-resourceful Raven, finding his seal oil supply depleted, discovers a new delicacy to serve his guests: a combination of salmonberries and *shatu taayí*, the fat from the eyeballs of sockeye salmon. According to the narrator, "The entertainment was a success and the recipe the raven drew up was used for many years until sugar was introduced; no oil, [or] sugar was required when shuntu tyi [***shantu taayí***] was used." (in Newton and Moss 1984:23-24).

Other stories stress the role of berries in survival and renewal. In "The Boy who Shot the Star," for example, the protagonist shoots arrows at a star next to the moon, darkening it. Eventually the arrows form a kind of chain ladder extending down to earth from the above-world, which the boy decides to ascend. Before doing so, however,

> [the boy] took various kinds of bushes and stuck them into the knot of hair he wore on his head. He climbed up his ladder all day and camped at nightfall upon it, resuming his worlds above the earth. When he awoke early on the second morning his head felt very heavy. Then he seized the salmon berry bush that was in his hair, pulled it out, and found it was loaded with berries. After he had eaten the berries off, he stuck the branch back into his hair very much strengthened. About noon of the same day he again felt very hungry, and again his head was heavy, so he pulled out a bush from the other side of his head and it was loaded with blue huckleberries [blueberries]. It was already summer there in the sky. That was why he was getting berries. When he resumed his journey next morning his head did not feel heavy until noon. At that time he pulled out the bush at the back of his head and found it loaded with red huckleberries. (Swanton 1909:210)

Like other Northwest Coast creation stories that detail how the first humans were fashioned from berry leaves (and for this reason die quickly; see Boas 1916:663-664 for a Tsimshian example), this narrative also highlights the organic and corporeal connections between humans and berry plants.

Indeed, aboriginal Tlingit ecology held that humans play an integral role in the maintenance and regeneration of plant and animal species through activities associated with the harvest. One basic tenet of this ecology is that berries are "there to be picked," and if they are not harvested, they may "die off" or fail to bear fruit for a period of time. Thus consumption helped to make the berry a "renewable" resource. This idea evidently stems from an even more basic ethno-metaphysical principle that is found among all Alaska Native groups, namely that berries, like all plants and animals and other elements of the cosmos, possess an agentic spirit or inner form, which must be treated with respect. If treated properly, the plant will be renewed, but if its spirit is ignored or offended, it may withdraw its support of life-sustaining resources. Among the Yup'ik Eskimos (Yupiit), these inner forms of nature's entities are conceptualized as "their persons" (*yuit*) and were treated as such. Thus, Himmelheber (1987:33, cited in Fienup-Riordan 1994:58) observed that, "Before we go berry-picking we always bury some food, for example fish, in the tundra. It is for the little men [***yuit*** "their persons," plural possessed of ***yua***] who live in the berries so that they will provide a rich harvest." In Tlingit these agentic inner forms or spirits are termed ***yeik*** or ***yakwaheiyagu***, and traditional berrying practices included a similar practice of "feeding" salmon eggs to nagoonberry and strawberry patches to nourish the plants and their ***yakwaheiyagu***, thus helping to ensure a bountiful harvests in the future (see below). Fienup-Riordan (1994) suggests for Yupiit that such acts of "feeding the land" also fed the human dead.[15] This connection is also implicit in Tlingit cosmology, where the spirits of deceased ancestors are believed to continue to dwell on their ancestral lands and are honored and nourished with offerings. Moreover, the connection is reinforced in the potlatch, where the ancestral spirits are fed the products of their lands in the so-called "fire dishes" (***gan s'ix'i***), containing renewable and life-enriching resources, such as berries, from the homeland.

Ownership and Management of Berry Patches.– As noted above, berry patches—like other dense and predictable but "patchy" resources, such as salmon streams,

halibut banks, and clam beds—were celebrated, owned, and defended as material property by matrilineal clans and house groups. Even when patches were not situated near an established village, the possessing clans or sibs that held title to these areas exercised their regulatory powers over them (contra Oberg 1973:40; compare Garfield n.d.). These regulatory powers were aimed at controlling both the supply and demand of resources.

Perhaps the most effective way to control demand on patchy resources like berries was through the development of the territorial system itself. The economic defendability hypothesis, as put forth by Dyson-Hudson and Smith (1978:23; see also Richardson 1982), predicts that territorial systems will develop, "when the costs of exclusive use and defense of an area are outweighed by the benefits gained from this pattern of resource utilization." Such a situation generally develops "under conditions of high density and predictability of critical resources" without a "superabundance" (meaning more than enough resources for all users, thus rendering territorial behavior unnecessary). Many berry patches in Glacier Bay and elsewhere met these conditions and thus were claimed as property. Such patches were defended only in the harvest period, during which slaves or other sentinels might be stationed to guard against intruders or early birds. Shotridge (1984: 172) records that in Klukwan, "if any violator was caught picking...before the day set for all, he never escaped his punishment at the hands of the authorized guards, which was, sometimes, besides losing all that he had picked, to have his canoe destroyed."

While exclusive ownership ostensibly carried with it the power to regulate access, in practice outsiders rarely were forbidden from gathering. In fact almost anyone could harvest berries in owned areas, provided that he or she "paid tribute" by asking permission and, if possible, citing a kinship link to the owners. As de Laguna notes (1960:70), "The last was usually easy to do." Among older Tlingits harvesting berries in Glacier Bay, this protocol is still practiced, as evidenced on a recent gathering trip to Glacier Bay where elders made long speeches relating themselves to the bay's T'akdeintaan owners before commencing to pick nagoonberries (see Thornton 1997a, 1998).

Yet, while "paying tribute" often involved nothing more than asking permission or citing one's genealogical relationship to the possessing sib, there were stern consequences for failing to do so. De Laguna (1972:407-08), for example, cites a case in Yakutat where the owners caught a trespasser in their Knight Island strawberry patch and cut the berry basket from the offender's neck. But the norm was for the outsider to seek permission and for the owners to grant it. During her fieldwork in the 1950s, de Laguna (1972:407) also reports having heard accusations that some women in Yakutat "were still attempting to exercise exclusive control over strawberry patches on sib lands, although this may have been only unfriendly gossip." In cases where a superabundance existed, or patches were too remote to physically defend, territoriality might still be expressed though legal means or through communicative structures such as visual art, narratives, or even gossip.

But communicative structures were used for inclusion as well as exclusion. For example, in 1946 a Chilkat Tlingit elder told land claims investigators that a "chief who owned a berrying area would send a man up to decide when the people should go after berries, and they would set a date to go up there, and he would send an invitation to the people to come up" (Suzie Nasook in Goldschmidt and

Haas 1998:102). From this testimony, it appears that clan leaders also used their knowledge and authority over local patches to facilitate others coming to gather when the berry picking conditions were peak and the supply abundant. By his extending the invitation, it could be argued that the leader was enhancing his prestige and "credit" in exchange for surplus berries, and by responding to the invitation other pickers were, in effect, legitimizing the possessing clan's prerogatives over the territory.

In the contemporary period traditional clan property rights have sometimes given way to individual or community based rights. Individual rights to berry patches in Glacier Bay began to be asserted through western legal means. One such means was the Indian Allotment Act, which required individuals, as opposed to sibs, to file for title to tracts of land and to support their claims based on past occupancy and use. Allotment petitions in Glacier Bay clearly show that certain lands were selected on the basis of traditional rights to important patches of berries, especially highbush cranberries, gray currants, nagoonberries, salmonberries, soapberries, and strawberries. In 1920, for example, a Huna man filed for a tract of land at the mouth of Dundas River. In a letter to the Commissioner of the U.S. Department of Interior's General Land Office recommending rejection of the petition, the supervising agent (GBNPAF) noted that he "was informed by the applicant's nephew that the applicant wants this allotment only so that he can have the exclusive right to pick the wild berries which grow on the land." In the agent's mind, such gathering did not constitute sufficient occupancy or improvement of the lands for the applicant to qualify for title. A similar rejection was recommended for another Tlingit man's allotment application to a tract further up the west side of Dundas River. Here the petition focused on control of coveted strawberry patches:

> The entire tract is covered with wild strawberry plants and during the summer seasons the berries grow abundantly°Several natives employed at the Dundas Bay Cannery stated that the applicant-[name omitted], had made a practice of keeping other people off the strawberry patch during the summer and had charged them $5.00 for picking berries there. It is believed that the applicant's sole purpose in obtaining the land is for revenue from the strawberries which grow there. It was also ascertained that the applicant earns his living by working at the various canneries during the fishing season and by trapping during the winter, and that he only lived on the land applied for during the strawberry season.

Although the agent emphasizes the applicant's intent to capitalize on the strawberry patches by imposing a rent on alien users, territorial systems traditionally also served to limit access-and thus demand-on limited resources. Consequently, the phenomenon known as the "tragedy of the commons," wherein self-interested harvesters seek only to maximize their share of common resources that they cannot control, thereby decimating the supply, was avoided.

But is there any evidence that local supplies of berries were ever stressed by Native demand? Localized shortages and seasonal variation of food resources along the Northwest Coast has been well-documented and could be especially dramatic in the northernmost areas, including Tlingit country (cf. Suttles 1968, 1974; Richardson

1982). In the case of berries, these shortages could be exacerbated, if not precipitated, by periods of high demand. Garfield (n.d.7-8) for example, notes that:

> Preparations for a potlatch were often such a drain on the resources of a group that they asked and received, the privilege of picking berries, fishing, or hunting on the territories of others. For the privilege the owners were compensated in goods, usually during the potlatch itself. Swanton ...describing preparations for a particular potlatch of the Queen Charlotte Haida, says that the members of the house group giving the potlatch went to Telel and Rose Spit to gather berries, paying the owners of the ground five blankets for permission to gather them. Oberg ...states. " In more recent times the Taku [Tlingit] clans are said to have rented their fishing rights to other clans but this is undoubtedly due to white influence."°The Tsimshian have definite rules about the extension of such privileges and payment for them, and the writer is certain that investigation would show that the Tlingit and Haida also have them.

The Huna man's scheme to charge $5.00 to outsiders desiring to pick berries in his patch was thus not unprecedented in Northwest Coast resource tenure, although the individualized nature of his scheme (and perhaps his currency and prices) may have represented a departure from the traditional norm.

While in both of the above allotment cases applicants failed to meet the Western (continuous) occupancy and improvement (building) standards, such standards were unrealistic for a hunting and gathering society like the Tlingit. As Goldschmidt and Haas (1998:17) point out:

The Native economy of the Tlingit and Haida peoples was geared to this seasonality in a manner no different from the seasonality of a farm enterprise. Indeed, so close is the analogy, that certain groups report hunting and trapping practices which might best be succinctly described by the agricultural analogy "leaving the hunting area *lie fallow* for a season or two." Neither Native life nor modern means of livelihood is possible to the Natives if their territories were limited to those areas that they utilize the year round. The differential production of separate areas means that different portions of their territory complement one another and offer to the people a portion of their total means of livelihood. For this reason any discussion of "continuous" use must recognize the necessary intermittence made requisite by the seasonal limitations on the usefulness of the area.

In Tlingit property law, then, such seasonal occupancy and use patterns, combined with inherited rights, clearly did constitute a sufficient proof for title. Indeed, 62 years after these decisions, on our 1996 field trip to Glacier Bay, Huna elders were still aware of these claims and one pointed out the areas claimed by one of the allotment applicants and explained the stewardship practices he employed to ensure an adequate supply of berries.

Just as important as endeavors to control demand on key berry patches through territoriality and behavioral prescriptions were efforts to maximize the supply. Supply side efforts can be divided into three broad categories: environmental manipulation, redistribution, and technological fixes. Environmental manipulations involve human actions on the land to increase berry productivity. Among Native Americans, such techniques include manipulating ecological succession

(e.g., the use of fire to control forest succession), reducing competition (e.g., weeding), adding inputs (e.g., irrigation or fertilizer), and selection (e.g., domestication). Although there are no documented examples of fire use at Glacier Bay, it was practiced by Natives in the Pacific Northwest to enhance the habitat for favored plants (cf. Norton 1981; Hunn 1990; Turner 1991, Johnson Gottesfeld 1994). However, it seems that Tlingits on occasion did attempt to reduce competition through "weeding" of unwanted plants and brush. One middle-aged Huna man remembered being instructed by his elders to clear alder and other brush from favored strawberry patches so as to prevent the fruits from being choked off by the competitors, and observed others engaging in similar practices at Glacier Bay and Point Adolphus. Yet these practices apparently were not widespread and may have only been adopted along with the advent of gardening in the post-contact era.

Undoubtedly the most important traditional technique employed by the Glacier Bay Tlingit was the addition of inputs to enhance berry production. The most important additive was the egg of the dog salmon (*Oncorhynchus keta*), a resource which to my knowledge has not been previously documented in this context. Especially in Dundas Bay there was a tradition of ensuring the abundant regeneration of nagoonberries and strawberries by "feeding" these plants dog salmon eggs. The eggs, typically obtained from Dundas River, were conceived as an offering to the spirits of the berries, or ***tleikʷ yakwaheiyagu***. The belief was that these nourishing gifts would enhance the productivity of the berries in succeeding years, for although the plant's outer form may wither and die, its inner spirit endures and gives life to new plant the following year. In western agricultural terms, the eggs could be said to constitute a kind of "fertilizer;" but Tlingits were not satisfied with this analogy, as it does not do justice to the spiritual mechanics of the act. In Tlingit, the term used to describe such acts is ***héixʷa***, which is loosely translated as "magic" and broadly refers to any instrumental techniques used by individuals to influence nature for human ends. Thus, although berries were not domesticated, the landscapes they inhabited were, and the fruits themselves were cultivated by means of environmental manipulation.

Other efforts at controlling berry supply, such as transplantation, suggest that Tlingits have tinkered more directly with domestication as a cultivation technique, though perhaps only since the nineteenth century. Enterprising island Tlingit have been trying to transplant the coveted soapberry to their shores for years, apparently with little success. But transplants up and down the mainland were more successful. As de Laguna (1972:409) observed, "Soapberries°can now be found in Nunatak Fjord but are apparently a recent intrusion. In the last century they were imported from southeastern Alaska, probably derived from the interior via the Chilkat." More recently, when an island Tlingit elder prepared cuttings of Chilkat soapberries to take back to his home in Sitka, a local relative jokingly reminded him of property rights: "You'd better watch out," he said, "or they're [Chilkat people are] going to carve you on a pole" (i.e., a totem pole intended to ridicule a violator of Tlingit law).

Finally, redistribution of berries in space, through trade (as opposed to transplantation), and in time, through storage, also helped to mitigate issues of supply. Storage and preservation techniques allowed the Tlingit to capitalize on an otherwise fleeting resource and convert it into a year-round resource and trade

commodity. This, in turn, fueled demand and led to increased efforts to boost berry production through the effective organization of labor. Contrary to the common ethnographic interpretation, berrying was not only women's work. Although women typically handled processing duties, men, women, and children harvested, especially when large quantities needed to be obtained (Shotridge 1984; Thornton 1998). As noted above, Tlingit labor was organized along lineage lines, but productivity was enhanced by the matrilineage's possession of non-kin slaves, who assisted with harvesting and processing. This labor allowed surplus supplies of berries to be generated for purposes beyond consumption, such as gifts, ceremonial exchange, and trade.[16]

CONCLUSION

Glacier Bay National Park is a special place for berries, and the berries of Glacier Bay are special to the Tlingit descendants of Glacier Bay. Berries not only formed a significant portion of the overall diet, they were a key source of nutrition, medicine, symbolic capital, and trade goods. Glacier Bay berries were considered of exceptionally high quality and abundance and thus were a celebrated feature of the Tlingit landscape, cultivated to a higher degree than any other plant. A fine-grained analysis of both the ethno-metaphysics and social economy of berries shows why these potent but patchy resources were so valued and carefully managed. Huna Tlingits employed a variety of resource management strategies to maintain or enhance supplies and to control demand in ways that ensured the survival of the resource and, whenever possible, boosted the prestige of owners. Especially important were those berries that could be found in quantity in close proximity to Hoonah—bearberries, nagoonberries, soapberries, and strawberries. These fruits came to stand for Glacier Bay itself, especially in the context of memorial potlatches and other ceremonial gatherings.

Despite displacement from Glacier Bay, first by an advancing glacier and later by an advancing federal government and National Park system (the so-called "Second Ice Age," by Hoonah Tlingit; see HIA 1994), Tlingit ties to Glacier Bay remain strong. And while hunting and many kinds of fishing are outlawed today within park boundaries, berry picking is still legal, and thus represents among the most vital Tlingit subsistence links to their traditional homeland. Indeed, a recent survey by the Alaska Department of Fish & Game among Huna Tlingit seal hunters found that 81 percent those sampled used berries from Glacier Bay, a figure exceeded only by use of king (chinook) salmon and halibut among the dozens of foods harvested for subsistence (Schroeder 1995:287). Economic models alone cannot explain this perseverance, as expenses to obtain them are high and substitute fruits are readily available. Social and ideological factors must be factored into the analysis, for Glacier Bay fruits are still considered special gifts from the homeland, the "Big Dish" (***S'ix̲' Tlein***), the "Icebox" for Hoonah Tlingit. As elder Frank White (1998) put it, "Glacier Bay was special. When you tell them [Huna Tlingit guests] this is Glacier Bay [food], it meant more to them-more to us than any other place°.We've been there for centuries. It was our home."

NOTES

[1] A preliminary version of this paper was presented at the 1998 American Anthropological Association Meeting in Philadelphia as part of an invited session titled, "Ethnoecology and Kinds of Place—An Examination of Understanding of Landscape." I am grateful to participants of that panel for their constructive comments on the paper, especially Eugene Hunn, Leslie Main Johnson and Eugene Anderson. Madonna Moss and another, anonymous reviewer also provided very constructive suggestions. The initial field research for this study was supported by Glacier Bay National Park through a Cooperative Agreement (CA 9910-6-9027) with the University of Alaska Southeast. I am particularly grateful to Wayne Howell and Mary Beth Moss of Glacier Bay for their assistance. Finally, I want to express my sincere appreciation to the Huna Tlingit Tribe and the many knowledgeable elders who helped me develop a Tlingit perspective on the fruits of Glacier Bay, particularly Ken Austin, Richard Dalton, Ken Grant, Herman and Martha Kitka, Andrew and Alice Johnny, John Marks, Amy Marvin, George Obert, Frank See, Winnie Smith, and Frank White, but also others too numerous to mention. ***Gunalchéesh!***

[2] The spelling of Tlingit words follows the popular orthography developed by Naish and Story and later refined (see Dauenhauer and Dauenhauer 1987:38-47). Tlingit possesses both velar and uvular consonants. Velar consonants are represented in English by the letters g, k, and x, though the latter is pronounced more like the German "ch." The uvular consonants are represented by g̲, k̲, and x̲. Tlingit also features a set of glottalized consonants which are "pinched" between the vocal cords and the mouth. The pinch is symbolized by an apostrophe (e.g., *t'a*, king salmon), whereas a complete glottal stop is represented within a word by a period (e.g., *Ta.aan*, Sleep Town, a place name).

Coastal Tlingit has four long vowels and four short vowels, represented and pronounced as follows:

Tlingit Vowel	As in the English
a	was
aa	Saab (a Swedish car)
e	ten
ei	vein
i	hit
ee	seek
u	push
oo	moon

Vowels may be pronounced with either a high (á) or low (à) tone. In northern Tlingit the low tone is unmarked.

[3] The term "potlatch," apparently derived from the Nuu-Chah-Nulth word *pach'itl* ("to give") and popularized through Chinook jargon, is not a term most Tlingit favor. Tlingits generally use the English word "party" rather than potlatch, or they employ the Tlingit term *k̲u.éex'* ("to invite").

[4] Pojar and Mackinnon (1994:80) observe of *Rubus arcticus*, "The origin of the common name 'nagoonberry' remains a mystery." For Tlingits it is no mystery, however, because nagoonberries take their name from the Tlingit term for the species, ***neigóon***. This is one of the few instances where an English noun is borrowed from Tlingit.

[5] Today the fruits are typically distributed in smaller, commercially made bowls, such as the large stainless steel mixing-type bowls, and while the guests are still required to empty the bowl immediately, the contents are typically packed and taken home for later consumption.

[6] In addition to the memorial potlatch, the ethnographic literature includes references to special "berry feasts" that were held in August in some Tlingit communities (see Emmons 1991:323). And aside from their prominence in ceremonials, berries played an important role as everyday gifts. Carrie Willard (1995), who with her husband, Eugene, served as a missionary in Chilkat territory and resided at Portage Bay near Haines in the early 1880s, was regularly regaled with gifts of berries by local Tlingits. She narrates one visit to an "old chief's" house where her party was graciously received and given "the honorable end of the room," whereupon the chief said:

> He wished that the white man liked the Indian's food; then he show us how they loved us. He had salmonberries: would we eat some? We consented, and a servant brought the wash bowls before the chief's wife, who with her hands filled up the bowl with the beautiful berries°We took up our bowls and, after grace, began to eat with our fingers (1995:24).

This description is important because it details some of the protocol that surrounds nonceremonial gatherings and the gifting of berries in particular.

[7] This is not to say that all Tlingits do not prefer soapberries for their flavor. Some do. However, many suggest that they are an acquired taste, especially when not properly sweetened with sugar or other berries. Moreover, it seems clear that their value stems more from other qualities, such as their scarcity, performative preparation, aesthetic multiplying effect when whipped, and communal consumption. I was told by several elders that kinesthetic elements of soapberry processing, particularly the whipping motion, were incorporated into Tlingit ceremonial dances.

[8] For example, I was told by one Huna man that his father used to get upset when his sister brought hand-picked wildflowers onto the fishing boat, for he feared they would "jinx" his fishing luck.

[9] In addition, according to Emmons (n.d.) and others, a group called T'ikanaa, or "People of the Pacific side" at one time may have occupied Taylor Bay (***T'ixaa***) and parts of the outer coast.

[10] I have noted elsewhere (Thornton 1995) that "The relative dearth of plant names in both toponymies may be a reflection of glacial scouring and the lack of culturally significant plants in Glacier Bay as compared to other habitats."

[11] An interesting footnote on the whole question of naming is the 1940 attempt by the Washington office of the National Park Service to rename Netland Island in Berg Bay as "Berry Island." The rationale was that, "Between Pt. Carolus and Berg Bay the natives pick soap berries and strawberries. While it is not known if these berries are especially abundant on the island in question, it is felt that the suggested name is appropriate because it refers to one of the activities of the local natives" (Demaray 1940).

[12] There is no comprehensive ethnobotany on the Tlingit, for example, although there are ethnographic sources that speak to various ethnobotanical topics (e.g., de Laguna 1972; Emmons 1991; Newton and Moss 1984; Turner 1995). As one would expect, when we narrow the focus to berry plants, the paucity of information is even more striking. Moss (1993:631-2), attempting to correct a similar disregard for shellfish, suggests that they have been underplayed in the ethnographic literature due to (ethno- and anthrocentric) biases toward more "the dramatic, technologically complex, and male-dominated activities of fishing and sea mammal hunting." This may be true for berries as well. However, her conclusion that shellfish were also ignored because of their low-status as "beach" food certainly does not hold for berries, which, as we have already seen, were highly esteemed.

[13] For example, Richard Nelson (1983: 54) reports the belief among the Koyukon Athabaskans of interior Alaska that, because they grow low to the ground and are nurtured by the soil, berries are pregnant with potent "spiritual powers (***sinh taala'***)" that emanate from the earth, "and so they are potentially dangerous. This is especially true in the evening and at night, so people must not gather berries (nor should they pick flowers or harvest any kind of plant) in dusk or darkness."

[14] For example, it is said that berries may hide themselves from disrespectful harvesters. This belief is also documented in traditional stories elsewhere on the Northwest Coast, including the Nuxalt (Bella Coola) story of "The Woman Who Befriended a Wolf" (see McIlwraith's 1948, I:691; Turner 1997:291-92). In this story berries, which are personified as "a host of goggle-eyed little boys sitting on the berry shoots," attempt to hide from a woman who violates a prohibition against munching on berries while picking. "Thanks to her sight of the berries in human form, she was thenceforth able to see them in their hiding places and was accordingly always fortunate. She respected the wishes of the fruit, never eating as she picked, but chewing dried salmon instead." Leslie Main Johnson of the University of Alberta (personal communication 1999) reports similar stories among the Witsuwit'en Athabaskans of northern British Columbia, where cranberries are said to be capable of "hiding themselves in the moss" and "covering themselves with moss at dark to go to sleep."

[15] See Active (1998:36) for another first-hand account of this practice.

[16] In some cases, material technologies, such as wide-mouthed baskets (***taal*** from the verb "to flatten"), and innovative harvest techniques, such as shaking or striking of soapberry and huckleberry bushes to release the fruits into these baskets (or in some cases onto mats or sheets) rather than picking individual berries, also facilitated production (cf. Shotridge 1984). Johnson (personal communication 1999) notes similar efforts to mobilize and organize labor among the Gitksan of British Columbia, including reconnaissance missions to determine the most productive berry patches in which to concentrate picking effort, a strategy also employed by the Tlingit. It should also be noted that the laborious aspects of picking were mitigated to some extent by the festive nature of the harvest itself. Shotridge (1984:173), a Chilkat Tlingit, described the "pickers' stampede" as a euphoric occasion inspiring widespread participation "somewhat as the white man's patriotic celebration does him," an analogy that also was drawn by my Hoonah consultants. But production of large quantities of surplus berries for ceremonial gifts and trade required additional means of labor and organization to succeed.

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