

## Soapberry: Unique Northwestern Foaming Fruit

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### 1. Introduction<sup>1</sup>

#### 1.1. Berries as food

Berries are a key food resource for Indigenous Peoples of North America.<sup>2</sup> In Canada there are approximately 145 different species of wild berries (Kuhnlein and Turner 1991); many indigenous groups name and collectively use up to 20–30 different kinds of berries. Berries contribute important nutrients, including carbohydrates in the form of sugars, essential minerals and vitamins, especially C and A. Berries are also generally flavourful, and enhance the taste and consistency of other foods, including fish, meat and the inner bark of trees (Kuhnlein 1989; Kuhnlein and Turner 1991; Turner 1995, 1997). Edible berries in Canada are predominantly from the heather family [Ericaceae, including blueberries, huckleberries and cranberries (*Vaccinium* spp.) and salal (*Gaultheria shallon* Pursh)], the rose family [Rosaceae, including Saskatoon berry and its relatives (*Amelanchier* spp.), wild strawberries (*Fragaria* spp.), and raspberries, blackberries and relatives (*Rubus* spp.)] and the gooseberry family [Grossulariaceae, including currants and gooseberries (*Ribes* spp.)], but a number of other plant families also contribute edible berries.

Soapberry, or soopolallie (aka Canada buffaloberry or russet buffaloberry) [*Shepherdia canadensis* (L.) Nutt.] (Figure 1) is some-

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<sup>2</sup> For convenience, the term “berry” is used here to refer to any of various types of small, fleshy fruits. Botanically they are referable to several categories including drupes, aggregate fruits, pomes and true berries (see Turner and Szczawinski 1979).



FIGURE 1. Soapberry (*Shepherdia canadensis* (L.) Nutt.)

what of an anomaly as an edible berry. It is in the oleaster family (Elaeagnaceae), represented by only three species native to Canada. It has a distinctive bitter flavour due to the presence of low levels (ca 0.74%) of saponins, organic compounds which are natural detergents that give soapberry its characteristic foaming qualities (Small and Catling 2001). Many Indigenous peoples living within the range of soapberry do not eat it at all; some use it as a famine food or casual snack, and some consider it to be poisonous. Those peoples who do use it routinely as a food consume it in an unusual way, namely in the form of a whipped confection (Figure 2), sometimes called by the misleading name of “Indian ice cream.”<sup>3</sup> Some people also prepare a lemonade-like beverage from soapberries. The berries themselves are used beyond the range of the plant, being routinely traded in the form of dried cakes, or more recently as jarred juice concentrate or whole berries (Turner and Loewen 1998).

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<sup>3</sup> Not to be confused with another dish called Eskimo or Indian ice cream, made by warming fat then whipping it by hand as it cools into a foam, with berries such as blueberries, cloudberries and wild raspberries as a flavouring (Jones 1983).



FIGURE 2. Soapberry Whipped Confection

Linguistically, soapberry is named with a diverse range of terms across the various indigenous languages where people recognize and use it as food as well as for other purposes. These terms and their relationships provide a key to the origins of the use of soapberry whip, and certainly reflect the wide exchange of knowledge and practice associated with its use. In this paper we describe soapberry as a food and culturally important shrub, then focus on its names as reflective of shared and disseminated knowledge and of the use of this berry through time and across geographic and cultural space.

### **1.2. Botanical description**

Soapberry is an upright to somewhat spreading deciduous shrub usually growing from 1–2 m high, with grayish bark and relatively small, oval, smooth-edged dark green leaves. The undersurfaces of the leaves, and the twigs and buds, are covered with a dense, copper-coloured scurf. The plants are dioecious, with male and female flowers produced on separate bushes. The flowers in both cases are small and greenish-yellow to dull red, blooming in early spring often before the leaves have expanded. The berries are borne singly or in clusters at the leaf axils of the female plants. Small, ovoid and translucent, they are green when

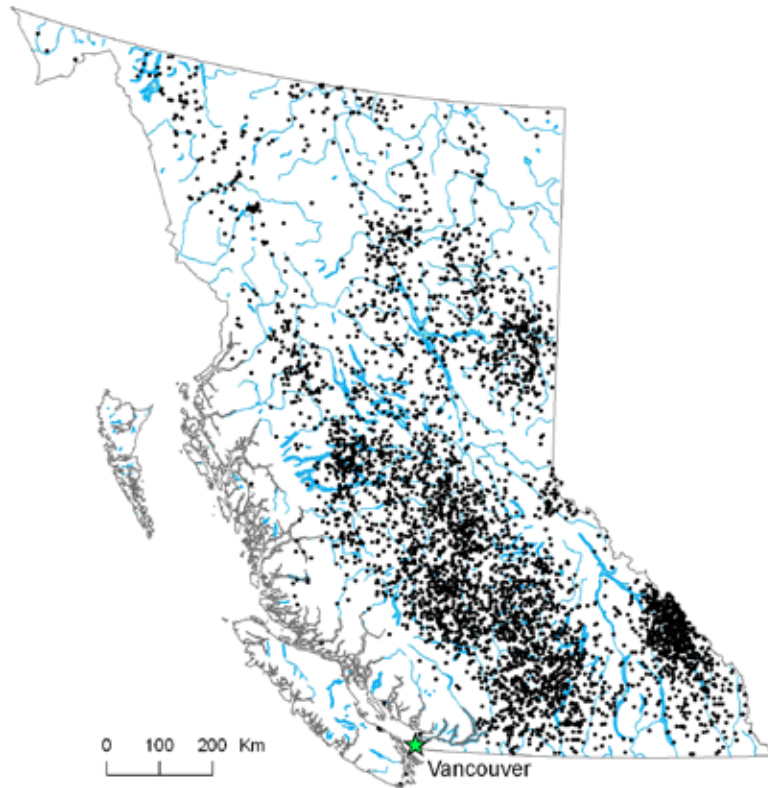


FIGURE 3. Distribution of Soapberry in British Columbia

unripe, and usually bright orange to reddish, or occasionally yellow when ripe. The fruits are dotted with brownish scurf. Soapberries generally ripen in early July to early August depending on elevation, latitude and microclimate (Douglas et al. 1999).

Soapberry roots associate with nitrogen-fixing actinomycetes, and hence soapberry has the capacity to help fertilize and renew soils. It is drought tolerant and is a common understory species of dry open pine, spruce, fir and aspen woods, also growing on rocky ground and sandy and gravelly shorelines. It grows well in serpentine and limestone soils, but not in waterlogged or saline soils. It is dominant, along with willow (*Salix* spp.), in the second stage of succession on glacial moraines. It sprouts readily after a fire, and spreads well vegetatively from roots and layered branches (Pojar and MacKinnon 1994).

This species ranges across Canada, from British Columbia to Labrador and Newfoundland (but not Prince Edward Island), as far north as Alaska, Yukon, Northwest Territories and Nunavut, and southwards in the United States to Arizona and New Mexico in the West and Illinois to Pennsylvania in the East. Over most of its range it is comparatively common.<sup>4</sup> Figure 3 portrays its distribution in British Columbia.<sup>5</sup> In western North America, soapberry is widespread throughout much of the Interior, but it grows only sporadically and in restricted populations along the coast. It apparently does not occur on Haida Gwaii or in other wetter regions such as the Olympic Peninsula or the west coast of Vancouver Island (Walkup 1991; Klinkenberg 2006).

## 2. Ethnobotany of soapberry

### 2.1. Food use

An overview of indigenous food use of soapberry, with specific references to different cultural groups, is provided in Kuhnlein and Turner (1991:163). Most of the indigenous peoples of central and eastern North America apparently did not eat soapberries, nor did the Dena'ina (Tanaina) or the Gwich'in of the Northwest Territories (P. Kari 1987; Andre et al. 2006). The Fisherman Lake Slave ate them occasionally, boiled and sometimes mixed with a little sugar or with meat or animal fat (Lamont 1977). The Cross Lake Cree eat them, but apparently only recently (Marles et al. 2000). The Siksika (Blackfoot) ate the berries in "lean times" (Hellsen and Gadd 1974:105). The Stoney of Alberta fried them in grease, or sometimes whipped them up or cooked them with sugar as a dessert (Scott-Brown 1977). The Dakota, Pawnee, Winnebago and some peoples of central North America did not, and apparently still do not, eat soapberry, but named and ate the berries of its close relative, silver buffaloberry [*Shepherdia argentea* (Pursh) Nutt.] (cf. Kindscher 1987; Moerman 2003).

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<sup>4</sup>SeemapandstatusassessmentunderNatureServeExplorer:<http://www.natureserve.org/explorer/servlet/NatureServe?searchName=Shepherdia+canadensis>

<sup>5</sup> Sources for Figure 3: Points—Biogeoclimatic Ecosystem Classification, UBC Herbarium, National Herbarium of Canada, Royal BC Museum; topographic layer—Atlas of Canada ([geogratis.ca](http://geogratis.ca)); design—N. D. Alexander.

Soapberries are eaten predominantly in British Columbia and adjacent States to the south: Washington, Oregon and Montana. Here, people developed the special whipped confection for which this fruit is best known, and with which the names “soapberry” and soopolal-lie (Chinook Jargon) are associated. Soapberry whip is still served in many households, especially at social gatherings. People consider it a festive food, to be enjoyed and shared. Sometimes people had, and still have, soapberry contests and soapberry fights, and many people end up smeared with the whip by the end of a soapberry-eating party (Ksan 1980; Port Simpson Curriculum Committee 1983).

The small, soft berries are difficult to pick off the bushes with the fingers, and since they fall off readily when ripe, people devised an easier and more efficient harvesting method. The harvester places a mat or container directly under the berry-laden branches, then strikes the branches sharply with a stick to dislodge the ripe berries in quantity. People can eat the berries fresh, but usually, at least in the past, they spread them out on layers of grass, mats or sheets and dried them, individually or in cakes. Sometimes people boiled them first, using red-hot rocks. Today the berries are usually jarred in water (Figure 4), with or without sugar, frozen, or made into a purée or concentrate, which is also used as a base for a tart, thirst-quenching beverage (Blankinship 1905; Turner 1997). The fresh or jarred berries, or the



FIGURE 4. Jarred Soapberries



FIGURE 5. Soapberry Whisk

dried, reconstituted berries, can be whipped by hand, or with a bunch of twigs or grass, or a special whisk-like implement made of the inner bark of silverberry (*Elaeagnus commutata* Bernh. ex Rydb., a soapberry relative) or maple (*Acer glabrum* Torr.) bound onto a wooden handle (Figure 5). People used—and some still use—special baskets, bowls or birch-bark vessels to prepare soapberries. No oil or grease must be allowed to come in contact with the berries or they will not whip. Specially carved paddle spoons of birch, alder or other wood are used to eat soapberry whip in many households (Figure 6).

Many people agree that the berries vary in degree of bitterness. Berries from a given patch might be tasted to determine their overall palatability before they were harvested. Tsilhqot'in elder Helena Myers would routinely taste the berries to find the bushes with the best

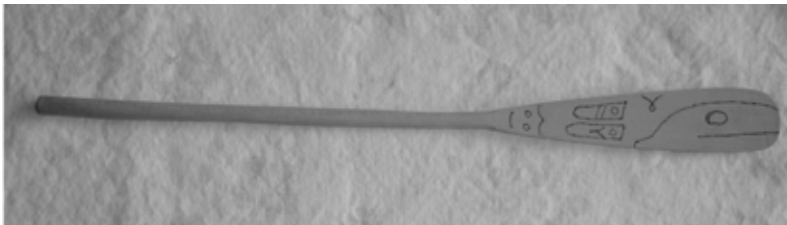


FIGURE 6. Soapberry Paddle

tasting fruit. While the bitterness can be alleviated by adding sweeter-tasting berries like Saskatoons (*Amelanchier alnifolia* Nutt.) or wild raspberries (*Rubus idaeus* L.) (or, since the arrival of Europeans, through the addition of sugar, as well as bananas and other imported fruit), many elders enjoy the unique taste of soapberries themselves and declare that too much sugar will spoil their taste. There are some reports that the berries become sweeter after frosts (Elias and Dykeman 1982). It is also interesting to note that saponins in some foods are broken down by thorough cooking, so perhaps boiling the soapberries served the dual purpose of facilitating storage and alleviating the bitterness (Anonymous 2004; Ruiz et al. 1996).

In an assessment of taste appreciation of wild berries by Nuxalk community members, soapberry (“dried or jarred, made thick whip with added sugar”) scored highly, with an average taste popularity score of 4.2 out of 5—the same as for wild strawberries (*Fragaria* spp.). Only blackcaps (*Rubus leucodermis* Dougl. ex Torr. and Gray), black mountain huckleberries (*Vaccinium membranaceum* Dougl. ex Torr.), salmonberries (*Rubus spectabilis* Pursh) and wild raspberries (*Rubus idaeus* L.) scored higher (Kuhnlein 1989). Virtually everyone agrees, however, that soapberries are an acquired taste, which few really appreciate the first time they try them.

Kuhnlein’s (1989) study also assessed the nutrient content of berries used by the Nuxalk of Bella Coola and represents the first report of any nutrient data on soapberry. In this study, fresh soapberry ranked quite closely with a range of other wild berries in terms of moisture content, protein, fat, carbohydrate, dietary fibre, and ash. It was comparatively low in some minerals including calcium, phosphorus, sodium and magnesium. It contained average amounts of iron and copper content, was relatively low in manganese and strontium, but showed the highest levels of zinc of all the 23 types of berries analyzed. Vitamin composition analyses revealed that fresh soapberries contain relatively low levels of thiamine and niacin, but very high levels of riboflavin (nearly four times higher than in wild strawberries, which contained the next highest amounts). Of all the berries assessed, only rosehips were higher than soapberries in ascorbate (Vitamin C). Soapberries are one of the traditional foods that young people of the Nuxalk and other communities still appreciate; today they are generally mixed with an electric beater, and there are many variations of sweeteners that are added to create new and different flavours.



## 2.2. Medicinal use

Soapberries are considered a healthy food; the whip was said to be good for settling the stomach after eating rich foods and to be a good general tonic (Turner et al. 1990). Beyond the health-giving properties of the berries, there are numerous other medicinal applications of soapberry, including for peoples that did not use the berries as food. As a typical example of medicinal use, the Dena'ina drank a tea of the boiled stems and branches to treat tuberculosis, and used this solution, when cooled, as a soaking bath to heal cuts and swellings (P. Kari 1991). The Carrier (Dakelh) boiled the stems and drank the resulting solution for the stomach (constipation) (Carrier Linguistic Committee 1973), as well as having used the stems for a childbirth medicine and hair tonic, the roots for tuberculosis and as a purgative, and the berries or whip to treat mosquito bites (Smith 1929; Hocking 1949).<sup>6</sup> Soapberry was sometimes mixed with other plants in medicinal preparations. Although these uses are cited from the past, soapberry continues to be an important medicinal plant to the present day.

## 2.3. Other applications

As well as being a food for people, soapberries are known as an important food for a number of animals, especially black bears and grizzly bears, as well as some birds (cf. Hebda et al. 1996; Turner 1997; Turner et al. 1990). Because the berries ripen in summer, they are an indicator for other resource life cycles. For example, for the Stl'atl'imx of the Fraser River area, the ripening of soapberries in late June means that the sockeye smolts are no longer good to eat (Turner 1997).

The medicinal uses of soapberry extend to spiritually based applications, for example, relating to hunting. Nlaka'pmx and Okanagan hunters have used the branches to make a cathartic drink to prepare themselves for hunting and to bring good luck by internal cleansing; sometimes this purification was done in the sweat-lodge. They also used this solution to wash their hunting gear for luck and to ensure that the game will not be repelled by its scent (Teit 1909; Turner et al. 1980, 1990).

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<sup>6</sup> The medicinal applications are important, but are so numerous that they will be discussed more thoroughly in another paper (Burton and Turner, in prep.). A literature survey by Moerman (2003) revealed about 60 separate medicinal applications for *Shepherdia canadensis*.

#### 2.4. Trade and travel

Soapberries are sporadic in their distribution and tend to be more common and productive in the Interior than on the Coast in northwestern North America (Figure 3). Furthermore, their productivity and quality varies from year to year and from place to place. As a sometimes rare yet universally valued commodity throughout most of British Columbia and adjacent areas, they fit well with a whole suite of products, from dentalia and abalone to obsidian and eulachon grease, that are part of a long-standing, active and wide-reaching trade network in western North America. Indeed, this network still persists today in the case of soapberries. The various names for soapberry in different languages and dialects reflect the social networks and trade relationships people have created over many years, probably centuries or even millennia.

One of the most compelling narratives about soapberry distribution and introduction of soapberry whip comes from *The Bella Coola Indians* by Thomas McIlwraith (1948:88), who wrote, “One of the foods regarded by the Bella Coola as a luxury is a foam-like whip prepared by beating up dried buffalo berries [soapberries] in water. Raven is given credit for introducing this to Bella Coola”:

Long, long ago, Sləxlək-wailx̄, a mountain in the Carrier country above Burnt Ridge, was a chief, possessing human characteristics. Buffalo berries flourished on his slopes, and he wanted to keep these for food for his guests. On one occasion he invited all the animals and birds, including Raven, to a feast and dance. His house was the interior of the mountain, and when all had assembled he carefully closed every opening so that none of the berries could escape. Raven determined to obtain some of this food for the Bella Coola, and accordingly, used his power to force one of the guests to go outside. As soon as a door was opened to let him out, Raven seized some of the whip and flew away, scattering drops of it in his flight. Berries grew wherever the drops fell, and since that time everybody has been able to make this luxury. Sləxlək-wailx̄ was very angry, but could do nothing.

This story at once implies ancient interior origins of soapberry for the Bella Coola, describes the serving of soapberry whip and situates it as a highly prestigious food, provided by chiefs at feasts

and carefully sequestered, and provides a cultural explanation to match the observed distribution of soapberry at the upper end of the Bella Coola valley but not at the lower end. It also provides an early reporting of the Nuxalk word for soapberry, *nuḵʷski*.

Some Kwakwaka'wakw groups were said to travel distances of up to 160 km to obtain soapberries, among other valued foods that were locally absent (Turner and Bell 1973; Turner and Loewen 1998). Procuring soapberries (called *neḵʷeskén*) through trade is well remembered by contemporary Kwakwaka'wakw elders including Kwaxsistala (Chief Adam Dick) and Mayanilth (Dr. Daisy Sewid-Smith), who described trading for them both to the south (Parksville/Courtenay region) and to the north (Bella Coola region) of the Alert Bay/Campbell River/Kingcome region (p. c. to NT 1996, 1998).

Soapberries are often featured trade products in the coast-interior exchange routes. For example, Interior peoples, including the Stl'atl'imx, Nlaka'pamx, Ulkatcho Carrier, Tsilhqot'in and Gitksan, traded soapberries, along with products such as Saskatoon berries, glacier lily bulbs (*Erythronium grandiflorum* Pursh), Indian-hemp (*Apocynum cannabinum* L.), whitebark pine seeds (*Pinus albicaulis* Dougl. ex Hook.), hazelnuts (*Corylus cornuta* Marsh.), wolf lichen (*Letharia vulpina* (L.) Hue), and tanned moose hides, to their coastal neighbours, the Halq'emeylem, Sechelt, Nuxalk, Haisla, Nisga'a and Coast Tsimshian. Coastal peoples provided in exchange such products as fish oil, especially oulachen grease, dentalia shells, clams, cockles, edible seaweed (*Porphyra abbotiae* Krishnamurthy), Pacific crab-apples (*Pyrus fusca* Raf.), vine maple wood (*Acer circinatum* Pursh) for bows, cedar products (*Thuja plicata* Donn ex D. Don; *Chamaecyparis nootkatensis* (D. Don) Spach.), and used clothing. These items were, in turn, traded by the immediate Interior and Coastal neighbours to other groups further inland (e.g. Secwepemc) and further westward (e.g. Nuu-chah-nulth, Kwakwaka'wakw, Heiltsuk, Gitga'at and Haida) (Teit 1900; Birchwater et al. 1993; Port Simpson Curriculum Committee 1983; Turner and Loewen 1998). For example, the Hesquiaht (Nuu-chah-nulth) traded soapberries from the Fraser River Sto:lo (Turner and Efrat 1982). Even when soapberries are available locally, they might vary in abundance from year to year, and people often had to travel to specific sites to harvest them. In some years, for example, if the local bushes were not productive, the people around Lillooet and Fountain (Xaxl'ep) had to go to Bralorne, or up in the mountains, to get their soapberries (Sam Mitchell, p. c. to NT 1974).

The Nlaka'pmx of Boston Bar brought dried soapberries to Spuzzum and the Fraser Valley to trade for salmon; half a cake of dried soapberries was said to be worth a salmon (Turner et al. 1990). Saanich Elder Elsie Claxton (p. c. to NT 1991) remembered travelling with her mother from their home community at Tsawout on the Saanich Peninsula to the Malahat area, East Sooke or the San Juan islands to pick soapberries; although some soapberries grew at Tsawout, they were not usually plentiful enough. Her mother dried and then later reconstituted the berries to make the whip. The south side of Mitchell Bay on San Juan Island is called SXA'SEM "Soapberry" according to Dave Elliott (Claxton and Elliott 1994). Other places are also named after this plant: Salmon Arm is named in Secwepemctsin for its extensive patches of soapberries (Mary Thomas, p. c. 1998).

In the late 1800s and early-to-mid 1900s, many Indigenous People in British Columbia, particularly those living in the vicinity of the lower mainland, worked as crop harvesters in the Fraser Valley and in the Tacoma and Yakima areas of Washington. People from various cultural groups met in this way and exchanged botanical and other types of information, about—among other things—new food preparations like the soapberry "lemonade" beverage (Elsie Claxton, p. c. to NT 1991). Annie York remembered that Nlaka'pamx women used to sell soapberries and other traditional foods at the camps of Native hop-pickers in the Fraser Valley (Turner et al. 1990). More recently, Compton (1993) noted that along the coast in 1989, a pint jar of soapberries was worth \$25 and a quart jar \$50 Canadian currency.

People in some areas learned how to enhance soapberry growth and productivity, as they did for other types of berries and various root vegetables (Peacock and Turner 2000; Turner and Peacock 2005). Sometimes soapberries and other berries were harvested by breaking off branches from the bushes and shaking or picking off the berries (Compton 1993; Elsie Claxton p. c. to NT 1997; Nellie Taylor and Ron Ignace, p. c. 1993). This was a form of pruning, which people maintained made the bushes more productive in the following years, and allowed elders and others unable to walk in rough terrain to participate in the harvest. Burning over berry patches, including soapberry patches, was also practiced periodically in many areas and was said to promote growth and productivity and reduce insect and other pests (Turner 1999). Soapberries sprout up readily after a burn (Robert Gray, p. c. to NT 2006).

### 3. Linguistic relationships

Words for soapberry and activities relating to the use of soapberry exist in most languages along the Northwest Coast of North America. The Appendix provides a list of available names for soapberry in as many languages as we could access.<sup>7</sup> A glance at the list reveals that many of the words for soapberry are linguistically similar, not only within language families but across families in several cases. One logical hypothesis for commonalities in the names given to soapberry is that if the plant was not abundant within a particular territory, trade occurred with a neighbouring nation, whose territory produced a greater abundance (Turner and Loewen 1998; van Eijk 2003). For example, the Appendix records the interior Stl'atl'imx word for soapberries as *sx'úsum*, the same word recorded for the Sechelt people. The linguistic similarities of these words are in keeping with the idea that the direction of trade goods and linguistic borrowing are linked to species abundance. Since many linguists agree that borrowing words frequently occurred for social-cultural, economic and geographical reasons (Campbell 2004; Hock 1991), determining the possibilities of such connections is helpful in understanding both the cultural and economic relationships between the First Peoples of the Northwest and the changing nature of languages through borrowing of terms. According to Campbell (2004), the practice of lexical borrowing is common around the world when new foods or technological goods are introduced into a culture. Therefore, it can be considered that the acquisition of words along with trade goods was a common practice between nations. The goods that were most valued were foods that were locally scarce, available only seasonally, required intensive labour and entailed organization by a person of rank (Halpin and Seguin 1990:271).

It should be noted that a common theme when analyzing soapberry words is the presence of a root or stem that related to the English word “foam”. For example, Hargus (p. c. to CB 2007) comments that the Witsuwit'en word for soapberry, *niwis*, is a deverbal noun and that the imperfective form of the Witsuwit'en verb *n-wis* ('foam or bubble') is, in fact, *niwis* ('it's foaming?'). Smith (p. c. to L. Saxon 2007) elaborates on the Tsilhqut'in term, *núwísh* noting that the root is from *guwísh*

<sup>7</sup> We are indebted to Dr. Cecil Brown for his generous contributions to our search for soapberry names, through his extensive Native Language dictionary reference collection.

‘foam’. Similarly, many Salishan soapberry words include the stem \* $\check{x}^wus$  ‘foam’ (Jan van Eijk, p. c. to NT 2007).

### 3.1. The Salishan etymon

According to Kinkade (1989), Jan van Eijk, and Cecil Brown (p. c. 2007) the term for soapberry reconstructs for Proto-Salish, deriving from \* $\check{x}^wus$  ‘foam’. This suggests that it was probably of great importance to the speakers of that ancestral language, and that soapberry—and evidently soapberry whip—has been an important food on the Northwest Coast for thousands of years. Cecil Brown (p. c. 2007) points out that a reasonable case can be made for the diffusion of Salish soapberry terms into Wakashan and even Athapaskan languages because the term etymologizes in Salish (X + ‘foam’ + Y) but, he suggests, not in the other languages. Therefore, soapberry words that are similar to the Salish terms in Wakashan probably originated from Salish rather than the other way around. The relationship between the Salishan and Athapaskan terms is less clear.<sup>8</sup>

In a preliminary analysis of one Wakashan language (Ditidaht) and two Salishan languages (Straits and Lushootseed), Hess (n.d.) found that a number of plant names were borrowed by the Ditidaht from the Salish peoples. Evidence of such borrowing can be seen in the Appendix, where the Ditidaht word for soapberry is reported as  $\check{x}u-sim$  and the Straits term is  $s\check{x}^w\acute{e}sem$ . Considering that an initial *s-* is a nominalizer in Salishan languages, the orthographic representations are almost identical.<sup>9</sup>

Cecil Brown (p. c. 2007) considers the most interesting example of diffusion in soapberry terms is the name in Northern Tutchone, *ninghro*. He points out that this term is very similar to the term in Carri-

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<sup>8</sup> Jeff Leer (p. c. to S. Hargus, 2009) points out that Athapaskan names for soapberry could be based on a proto-Athapaskan term \*(...) $\check{x}u[-q]$  ‘foam’, which has a potential Tlingit cognate *qit* ‘foam’ existing alongside the verb theme *t-qit* or *t-qis* ‘get foamy’. From this evidence, it seems that Athapaskan may have had this word for a long time, possibly pre-dating proto-Salish. More detailed investigation is required to resolve this issue.

<sup>9</sup> Hess further suggests that if this pattern is found to hold for the majority of borrowed plant names, it may indicate the possibility of Ditidaht expansion at the expense of Salish territory, assuming a relatively stable distribution of the plants in question.

er (*ningwus*), which is itself, he suggests, a loan from Salishan.<sup>10</sup> As far as Brown could determine, no words in Northern Tutchone have stem-final *s* or *š*, and, thus, he suggests, it is not surprising to find that it lacks the stem-final *s* or *š* of the diffused form (it dropped it to conform with its phonological canon). Notably, Northern Tutchone is spoken way up north in the Central Yukon. The geographically closest language having a similar term is Fort Ware Sekani, with *nishghwush* ~ *nishghwush*. This suggests that the term has diffused from Salish languages in the south to at least one language of the Central Yukon in the far north indirectly through various Athapaskan languages, again indicating that soapberry was “a real hot trade item” in what must have been fairly ancient times over a very broad area (Cecil Brown, p. c. 2007).

### 3.2. The Tsimshian etymon and the Haida and Haisla connection

Among the Tsimshianic-speaking peoples, the Gitksan traditional territory includes large areas within the sub-boreal spruce (SBS) biogeoclimatic zone, where soapberry grows abundantly (Figure 3). Like the Salish, the Gitksan used this prized berry as a prestigious trade item (‘Ksan 1980). They traded their soapberries for oulachen (a small smelt, valued for its oil), seaweed and other coastal foods with the Tsimshian and Nisga’a who had easier access to coastal plant and animal species but a paucity of soapberries (‘Ksan 1980; Turner 1981, 2004; Turner and Loewen 1998). The Appendix shows that the word for soapberries is found in almost the same form throughout the Tsimshianic language family. Gitksan and Nisga’a have *’is* and a similar word *’as* is used in Coast and Southern Tsimshian. The similarity of the words in the two branches of Tsimshianic shows that they are most probably descended from the same ancestor (Tarpent, p. c. 2007). The Skidegate Haida also use the Nisga’a and Gitksan word, and so do the Haisla, speakers of a Northern Wakashan language. We can assume that the Haida and Haisla have “borrowed”—that is, adopted—the word, most likely from Nisga’a, which is closer to their territories.

According to Bruce Rigsby (p. c. to CB 2007) the term *’is* in the Gitksan language is homophonous with the term for urine and some speakers recognize a metaphorical relationship of similarity between the foaming of urine and the foam of whipped soapberries. Further,

<sup>10</sup> Brown (p. c. 2007) notes that the Stuart Lake/Ft. St. James term, *ningwus*, shows further phonological similarity to the Northern Tutchone term with regard to the shared -ng- in the C2 position.

according to Marie-Lucie Tarpent, who has been working on the comparison of all the Tsimshianic languages and the reconstruction of the common ancestor, the homophonic relationship of the Gitksan words for ‘soapberries’ and ‘urine’ (the latter being also the root meaning ‘to stink’) is a coincidence limited to this particular language, resulting from independent sound changes in words which were originally different, and which are still quite different in Coast Tsimshian and Southern Tsimshian, where ‘soapberry’ is *’as* but ‘to stink’ has the root *’üüs*. She concludes that the metaphorical link through the meaning ‘foam’ in Gitksan must have been a later attempt to find some reason why two words with such different meanings would sound exactly the same in the language (Tarpent, p. c. to CB 2007).

### 3.3. Other names for soapberry

The name for soapberry in the Massett dialect of Haida (*xagutl’iid*), as well as the Alaska Haida name, is evidently derived from the Tlingit term *xákwl’ee*, suggesting different trade routes for soapberries to Skidegate and Massett Haida communities.<sup>11</sup>

Many berry species—typically served with fish oil or seal grease in huge feast dishes—were an important addition to the food served at Tlingit winter ceremonial feasts. In addition, dried berries were given as prestigious gifts at the end of feasts (Thornton 1999). According to Thornton (1999), *xákwl’ee* was frequently served as what we would call the “pièce de resistance” at the end of the feast. Not only did it assist in digestion, after probable overeating, but “the spectacular multiplying effect” (Thornton 1999:30) of whipped soapberry was a fitting end to the celebrations. In both cases, the berries arriving on Haida Gwaii could well have reflected secondary or tertiary origins, from Gitksan and Inland Tlingit respectively.

## 4. Origins of the soapberry culture

There are a number of distinctive innovations represented by soapberry use in northwestern North America. First of all, the concept of converting a rather bitter tasting berry into a valued

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<sup>11</sup> Since soapberry does not occur on Haida Gwaii and the Tlingit had greater access to the interior through their territory, it is reasonable to assume that the term for the berries originated with the Tlingit and was borrowed into Massett Haida during trade.



feast and celebration food is remarkable. The method of picking soapberries by hitting the branches is likewise unique, different from harvesting techniques for other berries. The pruning of the branches during picking is not exclusive to soapberries, but is nonetheless an important management technique applied to a relatively small number of species (Deur and Turner 2005). The common method of drying soapberries in thick cakes, often (in the Interior) on beds of timbergrass (*Calamagrostis rubescens* Buckl.—called “soapberry grass” in Tsilhqot’in) is also an effective and innovative processing method. The design and use of special soapberry whipping implements is another innovation that is quite widespread but with considerable variation. The use of specially designed baskets for whipping soapberries (Turner et al. 1990), and of unique paddle-shaped wooden spoons for eating soapberry whip, is perhaps the ultimate artistic expression of the soapberry culture. Finally, the development of the soapberry juice beverage, which is still prepared and enjoyed in many households, is a unique application of these berries.

How did all of these inventions come about? The berries foam easily and spontaneously if rubbed, so the actual discovery of their whipping properties is not in itself remarkable. However, producing a mass of beautiful pinkish, stiff froth is surely a more sophisticated creation. Did soapberry whip and all its associated innovations derive originally from a single region or within one cultural group? If so, where and with whom? If not, what different aspects were developed by whom? What was the time frame under which these different features of soapberry use were developed? What economic, cultural and social factors were involved? Similar to food trends today, the preparation and consumption of soapberry whip was likely a sign of “savoir faire” or sophistication and so its use was eagerly adopted and uniquely modified within individual cultures. Why have soapberries persisted in use and continue to be valued when many other traditional foods—some, it could be argued, better tasting—have been all but forgotten? These are questions that may never be answered completely, but linguistic evidence, combined with other lines of evidence may provide some of the answers.

Hess (n.d.) noted many years ago that if the speakers of one language excel in a particular technique or craft, their neighbours may borrow their words relating to that activity or artifact. Whichever people perfected the creation of soapberry whip were therefore prob-

ably the ones whose name for soapberries was disseminated along with their new creation. More comparative research on terms for soapberry whipping implements, soapberry spoons, and soapberry harvesting practices will be needed to track the spread of these practices across languages. For the whip itself, evidence points to the Salish, or rather the Proto-Salish as the originators. Assuming that these ancestral people lived in the lower Fraser Valley region, they may have had access to some soapberries, but if the distribution of these berries was similar to their present range, the Proto-Salish peoples would have had to travel either to Vancouver Island and the Gulf Islands or eastwards to the vicinity of the Cascade mountains (Figure 3).

## **5. Conclusions**

From this paper, it can be seen that there was an established network of trade for soapberries among Northwest First Nations and that these berries were important for social, spiritual and economic relations, as well as for their nutritive value and the medicinal properties of both fruit and bushes. Furthermore, it is not a new idea that lexical borrowing of terms would have occurred across nations especially for new and innovative trade items. It has been well established by linguists (cf. Campbell 2003; Hock 1991) that borrowing has occurred and still does occur across languages worldwide for a wide variety of reasons, including coincident with the introduction of new species and for trade and other cultural reasons. Preliminary research linking species distribution and linguistic borrowing has been previously assessed by some researchers (Turner et al. 1998b). More research in this regard would be an interesting and productive way to pursue evidence of trade, as well as the direction of borrowing, in the case of soapberry and its associated innovations and technologies and other plant products of similar distribution. Such research will also provide continuing insight into the sophisticated indigenous cultures of the past, which encompassed cultural exchange, trading practices and, land management in their daily lives.

**Appendix: Words for Soapberry (*Shepherdia canadensis*) in indigenous languages of northwest North America**

Language Family: Na-Dene

Gwich'in *dinjik jàk* (lit. 'moose berry') (Andre and Fehr 2000; A. Andre, p.c. 2009)

Ahtna (Central and Lower) *tigige'* (lit. 'dog berry'), (Mentasta) *sos gige'* (lit. 'bear berry'), *dluuni la'* (lit. 'mouse's hand') (Kari and Buck 1975; Kari 1990)

Tanaina (Southcentral Alaska) *dlin'a lu* (lit. 'mouse's hand') (Kari 1991:91; Kari 1987:13)

N. Tutchone *ninghro* (Ritter, McGinty, and Edwards 1977)

Kaska (Liard) *dzidze asghoshe*

Slave (Fisherman Lake) *ighoh tsena hoε<sup>h</sup>* (Lamont 1977:353), (Mountain) *ighoh* (Kaska Tribal Council 1997)

Tahltan *ish-ghohje* (Charles and Julia Callbreath, p. c. to NT 1997)

Sekani (Ingenika, McLeod Lake) *niswhus* (Davis 1993), (McLeod Lake) *nijwus*, (Fort Ware) *nisghwush* ~ *nishghwush* (Hargus, p. c. 2009)

Witsuwet'in *niwis* (Gottesfeld and Johnson 1994; Hargus, p. c. 2007)

Dakelh (Carrier) (Stuart/Trembleur Lake) *ningwus* (Poser 1998a), (Stoney Creek) *nawus* (Poser 1998b), (Ulkatcho) *nawus* [*nawus t'an chun* 'soapberry bush'] (Hebda et al. 1996)

Tsilhqut'in *nùw'ish* [-w'ish 'foams', *nuw'ishich'in* 'soapberry bush'] (Linda Smith, p. c. 2007)

Eyak *q'e'skuha'gu* ~ *q'e'skuḵa'gu*, *kuha'g* ~ *kuḵa'g* (Krauss 1963–1970)

Tlingit *xákwl'ee* (Naish and Story 1996)

Language Family: Haida

Haida Alaska *xagwt'lid* (Turner 2004)

Haida Massett *xagutl'iid* (Turner 2004)

Haida Skidegate *'as* (Turner 2004)

Language Family: Tsimshianic

Nisga'a *'is* [*sk'an-is* 'soapberry bush', *sk'an* 'bush or plant'] (McKay et al. 2001)

Gitxsan *'is* [*sg-an-is* 'soapberry bush', *sgan-* 'bush or plant', *yal-is* 'Indian ice cream', *yal-* 'to flail or whip'] (Smith 1997:84, Gottesfeld and Anderson 1988; 'Ksan 1980)  
 Sm'algyax *'as* [*yel'as* 'whip soapberries', *yel-* 'to flail or whip'] (Ts'msyen Sm'algyax Authority 2001:278; Turner and Thompson 2006:61)  
 Sgúúsx (Kitasoo) *'ás* (Compton 1993:329)

Language Family: Wakashan

Haisla *h'as* [*h'acàs* 'soapberry bush', *h'asa* 'to pick soapberries', *h'as:h'sa* 'to eat soapberries', *h'as:h'sayu* 'spoon for eating soapberries'] (Compton 1993)  
 Hanaksiala *h'as* (Compton 1993)  
 Heiltsuk (Bella Bella) *nǎ<sup>w</sup>stk*, *nǎ<sup>w</sup>sk* (berries); *nǎ<sup>w</sup>sgán'u*, *nǎ<sup>w</sup>sk'as* (bush) (Rath 1981)  
 Oweekeeno *nǎ<sup>w</sup>sk*, *nǎ<sup>w</sup>skin* [*nq'wás* 'soapberry bush', *nq'wa* 'to pick soapberries', *cùcu* 'whipped soapberry foam'] (Compton 1993)  
 Nuuchah-nulth *muǎ<sup>w</sup>áskn*, *sup+ulalii* (from Chinook Jargon) (Turner and Efrat 1982)  
 Kwak'wala *neǎ<sup>w</sup>eskén* (Turner and Bell 1973)  
 Ditidaht *ǎu-sim* [*ǎu-sim-apt* 'soapberry bush', *-apt* 'bush'] (Turner et al. 1983)  
 Makah *p'aca'pacš* [from *p'ac-* 'to foam'] (Gill 2005:400)

Language Family: Salishan

Proto-Salish *\*s-ǎ<sup>w</sup>us-m* [*ǎ<sup>w</sup>us* 'to foam'] (Kuipers 2001)  
 Nuxalk (Bella Coola) *nuǎ<sup>w</sup>ski* [plant: *nuǎ<sup>w</sup>snux<sup>w</sup>ski-łp*, reduplicated form] (Turner 1973, 1974)  
 Halq'eméylem dialect (Stó:lo) *sǎ<sup>w</sup>ōsem* (> *ǎ<sup>w</sup>us* 'foam' + *-em* verb suffix) (Stó:lo Sitel Curriculum 1982)  
 Straits Salish (Saanich) *sǎ<sup>w</sup>ésem* (bush: *sǎ<sup>w</sup>esem-łč*) (< *-wes-* 'to foam or froth'] (Elsie Claxton, p. c. to T. Montler)  
 Tla A'min (Mainland Comox) *ǎ<sup>w</sup>úsum* [*ǎ<sup>w</sup>usúm-ay* 'soapberry bush', *-ay* 'bush'] (Bouchard and Kennedy 1973–75)  
 Skxwú'mish (Squamish) *sǎ<sup>w</sup>usum* [*sǎ<sup>w</sup>usum-ay* 'soapberry plant', *-ay* 'plant'] (Dominic Charlie, p. c. to R. Bouchard and NT 1976)  
 St'át'imcets *sǎ<sup>w</sup>úsum* (van Eijk 2003)  
 Sechelt *sǎ<sup>w</sup>úšum*, *sǎ<sup>w</sup>úsum* [*sǎ<sup>w</sup>ušum-ay* 'soapberry plant', *-ay* 'plant' or 'bush'] (Reggie Paul, p. c. to J. Timmers and R. Bouchard 1972; Turner and Timmers 1972; van Eijk 2003)

- Secwepmec (W) *sxúsem*, (E) *sxúsa* [*sx<sup>w</sup>esemétp* ‘soapberry bush’, -*étp* ‘bush’] Palmer 1975; Turner et al. 1998a)
- Nlaka’pmx (Thompson) *sx<sup>w</sup>úšm* [*sx<sup>w</sup>usm-étp* ‘soapberry bush’, -*étp* ‘bush’] (Turner et al. 1990:99, Thompson and Thompson 1996:1238)
- Okanagan *sx<sup>w</sup>usm* [*sx<sup>w</sup>esm-ítp* ‘soapberry bush’, -*ítp* ‘bush’] (Turner et al. 1980:99)
- Lushootseed *sx<sup>w</sup>asəb* [*sq<sup>w</sup>úšahəb* ‘foam’] (Hess 1976)
- Columbian *sx<sup>w</sup>úsəm* [-*sx<sup>w</sup>ús-* ‘to foam’] (Thompson et al. 1974)
- Clallam *sx<sup>w</sup>ásəm* [*sx<sup>w</sup>ásəm-ítč*, ‘soapberry bush’ [-*ítč* ‘plant’] (L. C. Thompson, p. c. 1974; Fleischer 1980)
- Spokane/Kalispel *sx<sup>w</sup>úsəm* [-*sx<sup>w</sup>ús-* ‘to foam’] (Thompson et al. 1974)
- Coeur D’Alene *sx<sup>w</sup>úsəm* [-*sx<sup>w</sup>ús-* ‘to foam’] (Thompson et al. 1974; Palmer et al. 2003)
- Flathead *sx<sup>w</sup>usəmn* [*sx<sup>w</sup>usəmn-álk<sup>w</sup>*, -*alk<sup>w</sup>* ‘wood’] (Hart 1974)

Language Family: Chimakuan

Quileute *sòp+olò.li* (from Chinook Jargon) (Gunther 1973)

Other languages

- Chinook Jargon *soopolallie* (Anonymous, n.d.)
- Kutenai (isolate) *kwəpatił*, *k’upa?tił* ‘it is flailed’, *kupa?tił-wu?k* ‘plant’ (Hart 1974; Hart et al. 1981)
- Sahaptin *kula-kúla* (?) (Hunn 1990:348)<sup>12</sup>

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<sup>12</sup> This term may actually refer to red hawthorn (*Crataegus columbiana*) (E. Hunn, p.c. 2009).

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