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THE GRAMMAR OF SNCHÍTSU'UMSHTSN (COEUR D'ALENE) PLANT NAMES

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ABSTRACT.—This paper analyzes 106 known plant names of Snchítsu'umshtsn (Coeur d'Alene), a Salishan language of northwestern North America whose ethnobotany has not been previously described. Grammatical analysis of plant names reveals semantic motivations, the structure of classification, and the position of Snchítsu'umshtsn among Salishan languages. A five-level botanical taxonomy correlates only partially with the levels defined by Berlin (1992) and Brown (1984). The morphological structure of plant names shows that classification is only part of the motivation for their construction. Many describe appearances and other sensory qualities that facilitate identification. Utilitarian concerns play a role, but not the dominant one. Snchítsu'umshtsn names are compared to those of other Interior and Coast Salish languages. A cline of decreasing cognate frequencies appears as one moves from Snchítsu'umshtsn in the east to the Coast Salish languages in the west. The 16 terms with cognates in at least six of the seven languages include names for eight trees (including six conifers), three berry bushes, one edible bulb and two edible taproots. Reasons for this distribution are discussed. We include a listing of plant terms with Salishan cognates, tables describing the morphological analysis of terms, and a table of cognate incidence in Salishan languages.

Key words: ethnobotany, categories, lexicon, plant names, Salish, Coeur d'Alene.

RESUMEN.—Este trabajo analiza 106 nombres de plantas en Snchítsu'umshtsn (Coeur d'Alene), una lengua Salish del noroeste de Norteamerica cuya etnobotánica no ha sido descrita. El análisis gramatical de los nombres de plantas revela los temas semánticos, la estructura de la clasificación, y la posición de Snchítsu'umshtsn entre las lenguas Salish. La taxonomía botánica, en cinco niveles, se correlaciona sólo parcialmente con los niveles definidos por Berlin (1992) y Brown (1984). La estructura morfológica de los nombres de las plantas muestra que la clasificación es sólo parte del motivo para su construcción. Muchos nombres describen la apariencia y otras cualidades sensoriales que pueden facilitar la identificación. Los conceptos referentes a la utilidad desempeñan un papel, pero no es el dominante. Los nombres Snchítsu'umshtsn se comparan a los de otros idiomas de los grupos Salish del Interior y Salish de la Costa. El numero de nombres semejantes decrece a medida que crece la distancia desde el Snchítsu'umshtsn, en el este, hacia las lenguas de la Costa en el oeste. Los 16 términos que tienen palabras semejantes en al menos seis de las siete de las lenguas Salish comprenden los nombres de ocho árboles (entre ellos seis coníferas), tres arbustos con bayas, un bulbo comestible y dos raíces comestibles. El trabajo discute las razones de

esta distribución. Incluimos una lista de términos sobre plantas relacionados con términos semejantes en otras lenguas Salish, las tablas que describen el análisis morfológico de los términos, y una tabla de la incidencia de semejanza entre términos en los dialectos Salish.

RÉSUMÉ.—Cet article analyse 106 noms de plantes Snchítsu'umshtsn (Coeur d'Alene), une langue Salishan du nord-ouest de l'Amérique du Nord dont l'ethnobotanie n'a pas encore été étudiée. L'analyse grammaticale des noms de plantes révèle les nuances sémantiques, la structure de la classification, et la position du Snchítsu'umshtsn au sein des langues Salish. Une taxonomie botanique à cinq niveaux ne correspond que partiellement aux niveaux définis par Berlin (1992) et Brown (1984). La structure morphologique des noms de plantes indique que cette classification n'explique qu'en partie leur construction. Beaucoup de noms décrivent l'aspect et autres qualités sensorielles qui facilitent l'identification. Les considérations utilitaires jouent un rôle, mais elles ne sont pas déterminantes. Cet article compare les noms Snchítsu'umshtsn à ceux d'autres langues Salishan de l'intérieur et de la côte. Un cline où la fréquence des cognates diminue apparaît quand on passe des Snchítsu'umshtsn à l'est aux langues Salishan de la côte ouest. Les 16 termes avec cognates qu'on trouve dans au moins six des sept langues comprennent les noms des plantes suivantes: huit arbres (y compris six conifères), trois arbustes à petits fruits, un bulbe comestible, et deux racines pivotantes comestibles. Cet article examine les raisons de cette répartition. Sont également inclus dans cet article: une liste des noms de plantes avec les cognates Salishan, des tableaux de l'analyse morphologique des mots, et un tableau de l'incidence des cognates dans les langues Salishan.

INTRODUCTION

Previous researchers studying the ethnobotany of the Salishan languages of northwestern North America have used plant names to understand botanical classification, grammatical conventions of naming, and relationships among cognate languages. No previous studies have focused on the plant names or the ethnobotany of Snchítsu'umshtsn[1] (Coeur d'Alene), a language of the Interior Salish division of Salishan (Figure 1). This paper analyzes the grammar of plant names in Snchítsu'umshtsn. The grammatical analysis reveals new information on botanical classification and the relationship of this language to other Salishan languages. The analysis includes 106 names for plants at the genus and species level (Appendix 1). A few of these terms have not yet been correlated to taxa identified in English. A few terms for higher-level categories are also included, revealing a botanical taxonomy with five levels which correlate only partially with the ranks defined by Berlin (1992) and Brown (1984).

Though we describe the Snchítsu'umshtsn taxonomy, the emphasis in our analysis is not on discovering taxonomic principles, but rather on describing and analyzing the linguistic structure of plant names. We find that when a plant name has internal morphological structure, this often reflects perceptions of the plant that are specific to the language and culture. Our findings suggest that classification is only part of the motivation for the construction of plant names and that another important motivation is the description of appearances and other sensory qualities that are salient or that enable plants to be readily identified. Some plants

FIGURE 1.—Interior Salish speech community territories ca. 1850, principally after Elmendorf (1965).

are named in more than one way according to which structural part (leaves, trunk, etc.) is most salient at the time of speaking. Utilitarian concerns play a role in plant naming, but not the dominant one. We find that many terms have lost linguistic structure and original meanings have become partially or totally obscured. This is the case with nearly half (47) of the terms. We also record six names borrowed from English and French. We discuss our findings in relation to comparable data from other Interior and Coast Salishan languages and we describe the cline of decreasing cognate frequences in plant names as one moves from Snchítsu'umshtsn in the east to the Coast Salishan languages in the west.

Theoretical Approaches.—There are several perspectives from which one can analyze a language's botanical terminology, or more specifically, its names for plants. One approach is to look for universal hierarchies of categorization, called taxonomies. For example, Brown (1984:1) wrote, "For speakers of American English, white oaks, pin oaks, and post oaks are kinds of oak; oaks, walnuts, and maples are kinds of trees; and trees, vines, and bushes are kinds of plants. Such a system of inclusive relationships forms a *folk biological taxonomy*" [italics in original]. Berlin (1992) proposed a taxonomic framework of ranks, starting with the most inclusive category "kingdom" and descending through "life-form," "intermediate," "generic," "specific," and "varietal," but he noted that strictly taxonomic presentations of ethnobiological material have been questioned, first by Bright and Bright (1969) and later by others (Ellen 1986; Hunn 1976; Randall 1976). The shift of emphasis away from taxonomy received further support from Turner (1987, 1989).

A second approach is to investigate what the naming of plants reveals about ethnically distinctive classifications of the botanical world. For example, Bright and Bright (1969) found that many plant names of two northwestern California

tribes—Yurok and Smith River—do not necessarily fall into any hierarchy. Instead, consultants often identified a plant as being "like such-and-such." They also reported that "where generic terms exist, they may also refer to a specific member of the class. . . . Thus Yurok *tepo'* refers to 'fir tree' or 'tree' in general" (1969:70). They concluded that "the aboriginal taxonomies of northwestern California can be represented more faithfully by a kind of 'sphere of influence' model," a conclusion echoed by Hunn (1985). Thus, one of the problems considered in this paper is the extent to which the structure of plant names reveals taxonomic categorization as opposed to other types, such as the identification of family resemblances, or functional (metonymic) relationships among plants. A second problem is to determine whether the structure of plant names is in fact intended to categorize by relating one kind to another, or simply to describe salient perceptual characteristics of plants.

Alternatively, plant names may be studied from a historical perspective in which cognates in neighboring languages are taken as evidence for common origins, borrowing, or language change. For example, Fowler (1972:109) found that plant names provided "ecological clues to early homeland situations." Examining plant name cognates among northern Uto-Aztecan languages, including those of the Numic, Tübatulabalic, Takic, and Hopic groups, she was able to conclude that their ancestors must have lived in a territory that was diverse in elevation and probably in or near desert zones. Based on the distribution of pinyon, prickly pear, ephedra, chia, lycium and cholla, as well as various animals, she could place the homeland area in the Sierra Nevada mountain range south of 36°30′ north latitude. Hinton (1994:87–90) followed a similar approach in her investigation into the origins of the Wintun people in Northern California. The areal ethnohistory approach using cognate distributions requires the examination of terms in all the members of a group of related languages together with data on the distributions of the named plants and animals. In this study we simply compare frequencies of cognate forms in other Salishan languages to determine closeness of relationship to Snchítsu'umshtsn.

Yet another approach to the study of plant nomenclatures examines their appearance in other domains of culture. For example, plant names may be used in the names of mythical persons, as in the Snchítsu'umshtsn story about Ylmíkhwm Asp'ukhwenítchelt 'Chief Child of the Root,' who taught each of the animals how to live. The name of the mythical actor is composed of *ylmíx*^{w}*m* 'chief' and a-s$\sqrt{}$*p'éx*^{w}*enč*-ilt 'child of desert parsley (*Lomatium macrocarpum*)' (<ART-desert.parsley-offspring). In Snchítsu'umshtsn, mythical connections to plant names are uncommon.

Plant Names in Salishan Languages.—Comprehensive records of Salishan plant names are generally found in ethnobotanical studies, which usually include a great deal of associated cultural information on uses and cultural values of plants in addition to their Salishan names. Ethnobotanical studies of Salishan peoples are too numerous to review comprehensively here, so we will limit our survey to findings that are most pertinent to the present study of the linguistic structure and ethnic connections of Snchítsu'umshtsn plant names. The semantic implica-

tions of plant terms of Interior Salish languages are discussed in more detail in Palmer (1998b).

Turner (1974) found that in Stl'atl'imx (Lillooet), 52% of 137 plant names contained the suffix *-az'* or a form of the borrowed suffix *-lhp* (= *-alp, -elp*). She then argued that the distribution of the suffix demonstrated "the aboriginal existence of a definite category for at least 'vascular plants' " (1974:31). Turner (1987: 60) concluded, "It is notable that the names including this suffix pertain to a broad range of plants—mostly trees and shrubs, but also denoting some low herbaceous plants such as pine grass ["timbergrass"] and wild strawberry." There are a number of suffixes like this in Salishan languages, for example, Secwepemc *-ûlex*^{w} ~ *-elex*^{w} 'on the ground' and *-âleq*^{w} 'log, tree, windfall, stick, branch', both of which have cognates in Snchítsu'umshtsn and neighboring languages. Typically, the suffix marks off a taxonomic class, but it is never realized as an independent superordinate term for the set of terms using the suffix, though a few such suffixes, such as Secwepemc *-úsa?* 'berry' may be realized as independent terms (Palmer 1998b:353). Palmer (1998b:354–355) has summarized some of Turner's findings that are pertinent to this study:

> For Fraser River Lillooet, Turner (1974) identified eight "life-form" categories, plus "other." The eight life forms are "trees" (divided into "with leaves" and "evergreens"), "berries," "flowers," "grasses" (and grass-like plants), "mosses," "mushrooms and fungi," "weeds," "roots (and underground parts, including poisonous types)." Of these, there are general terms for trees, evergreens, berries, flowers, grasses, mosses, and weeds. Trees "with leaves" and "roots . . ." are unnamed.

In the same paper, Palmer (1998b) concluded that Berlin's (1992) hierarchical framework of "kingdom," "life-form," "intermediate," "generic," "specific," and "varietal" categories was not well-suited for describing the Secwepemc (Shuswap) plant nomenclature. Turner (1987:55) also noted discrepancies between Berlin's framework and the plant categories of Nlaka'pamux[2] (Thompson) and Stl'atl'imx (Lillooet). Similarly, she concluded that Brown (1984) was wrong in considering "vine" to be one of the five universal life forms, as the category has low salience in Nlaka'pamux and does not appear to exist at all in Stl'atl'imx (Turner 1987: 74–75).

Concerning the internal morphological structure of plant names, Turner (1974:54) observed, "The majority of generic plant names in Haida, Bella Coola (Nuxalkmc), and Lillooet (Stl'atl'imx) can be analysed into component semantic units having meanings independent of their connotations as plant names or portions of plant names." She compared such terms to the "unitary complex lexemes" of Conklin (1969), exemplified in the English term 'Jack-in-the-pulpit.' Berlin et al. (1973) referred to such terms as "analyzable primary lexemes." Turner pointed out that "analysis of these generic names can give insights into the origin of the terms, the economic importance and innate characteristics of the plants themselves, and even some cultural traits of the group in which the names originated." Palmer (1998b:353) noted that Salishan plant nomenclatures have a structure in which some taxonomic sets are dominated by a substantive suffix that never stands independently to designate the set. Palmer and Nicodemus (1985:

343) proposed that terms using these classificatory suffixes be called "composite specific lexemes." They may be seen as a subtype of Conklin's "composite lexeme."

Salish terms of this type function much like Conklin's "composite lexemes."[3] For example, *t'áda?alqʷ* 'white pine', from *t'éde?* 'canoe' + *-alqʷ* 'tree/shrub, pole, log' could be regarded as structurally parallel to English 'tulip tree' or 'black oak', "in that the name is composed of a superordinate category 'name' modified by a delimiting attributive." That is, the suffix *-alqʷ* would be regarded as modified by the root *t'éde?*. The reviewer may be correct, but it is difficult to know exactly how to interpret such terms. The term *t'áda?alqʷ* might alternatively be read metonymically as 'canoe log' rather than taxonomically as 'canoe tree.' It seems best to avoid concluding that Salish plant names function taxonomically in exactly the same manner as those of English. Gross similarities in lexical morphology, and of the binomials in particular, may be misleading. Perhaps it is such a misreading of the communicative function of plant terms that leads ethnobotanists to posit "multiple life-form assignment" and "taxonomic anomalies," as discussed by Hunn (1998), who observed of Mixtepec Zapotec that "generic plant categories may bear alternative life-form prefixes or, quite commonly, multiple life-form prefixes, i.e., two or three such prefixes one before the other." For a parallel in Snchítsu'umshtsn, we need only look at the morphological analyses of terms (7a) *√marám-alp-alqʷ* 'medicine-plant-tree' and (7b) *s-t-√marím-ɬp-ečt* 'NOM-attached-medicine-plant-whole.hand~branch' (see Appendix). Rather than compound life-form prefixes as in Mixtepec Zapotec, here we have compound suffixes, but the function may be the same, and that function is not necessarily taxonomic in the sense of distinguishing one species or genus from others belonging to a different life-form category.

Turner, Ignace and Compton examined the distribution of Secwepemc names for trees, looking for cognate forms in order to draw conclusions about historical linguistic connections. They found "a greater affinity in terms of shared cognates among Secwepemc and their Interior Salish neighbors to the south and east (Okanagan, Flathead, Moses-Columbian, and Coeur d'Alene" (Turner et al. 1998:395). Stl'atl'imx (Lillooet) and Nlaka'pamux (Thompson) were more closely affiliated with each other and both were more similar to the Coast Salish in their tree-naming.

SNCHÍTSU'UMSHTSN

Snchítsu'umshtsn is one of seven languages of the Interior Salish division. The others are Stl'atl'imx (Lillooet), Nlaka'pamux (Thompson), Secwepemc (Shuswap), Nsilxtsin (Okanagan-Colville), Nxa?amxcín (Columbian), and Kalispel. Snchítsu'umshtsn shares 55% of its total vocabulary with its closest Salishan neighbor, Kalispel, which includes Spokane, Kalispel, and Flathead dialects. Snchítsu'umshtsn may have branched off eastward from other Interior Salish languages sometime between 2500 B.C. and A.D. 1 (Elmendorf 1965; Suttles and Elmendorf 1963). The Schítsu'umsh people were later flanked on the north and east by peoples speaking dialects of Kalispel. In general one finds the most cognate plant terms among the closest neighbors.

The territory occupied by the Schítsu'umsh in late prehistoric and early historic times extended over the drainage and headwaters of the Spokane River, with three clusters of permanent winter villages at Spokane River-Coeur d'Alene Lake, the Coeur d'Alene River, and the Saint Joe River, respectively. This territory contained rolling palouse prairie in the west, foothills, mountains, and valleys in the east. These features varied in altitude from sea level to 2000 m, creating an environment of exceptional diversity. Palmer (1998a:313) summarized some of the significant features of the botanical environment:

> In aboriginal times, the eastern palouse prairie was dominated by Idaho fescue and by blue bunch wheatgrass. . . . Chokecherry thickets surrounded by thickets of snowberry and wild rose provided cover and forage for white-tailed deer. . . . The steppe vegetation of the fescue—snowberry zone maintains one-third of its maximum growth throughout the winter. Some of this growth would have occurred in roots and forbs utilitized by the Indians in the spring and early summer.
>
> On the edge of the prairie, open stands of ponderosa pine provide patches of grazing land for black-tailed deer. In the foothills, the valleys of the Coeur d'Alene, Saint Joe, Saint Maries, Benewah, and Palouse send tongues of grassy camas meadows up to the foot of the Rockies themselves. These small meadows were favorite camping and root-digging grounds for parties on their way to hunt and fish in the mountains. Along creeks and rivers grow cottonwoods, chokecherries, hawthorns, nodding onions, and cow parsnips.

This is the environment in which the Schítsu'umsh foraged for perhaps 100 generations or more, eating the useful roots, berries, seeds, lichen, mushrooms, and cambium, using woods and fibers for building materials and tools, learning to avoid plants that were toxic or thorny, and appreciating those offering beautiful and interesting sensory qualities. They developed a botanical nomenclature that may once have included two or three hundred names.

Owing to a history of language loss that began well over 100 years ago, the 106 traditional Snchítsu'umshtsn names in this list are surely but a sample of all the plant names that once belonged to the language.[4] This seems likely because larger samples have been obtained from neighboring peoples.[5] For example, between 1971 and 1973, Palmer (1975) recorded over 150 plant names of the Secwepemc. At about the same time, Turner recorded over 260 Nlaka'pamux plant names (Turner et al. 1990). These numbers suggest that the botanical vocabulary of the Schítsu'umsh (and the Secwepemc) was larger in aboriginal times, probably comparable to that of the recorded Nlaka'pamux lexicon.

The first recorded contact with Europeans occurred in 1806 when three Schítsu'umsh were encountered by Lewis and Clark. Trading posts were established nearby in 1809 (Kullyspell House) and 1810 (Spokane House) (Frey 2001). Employees of the Hudson's Bay Company established farms in the Northwest by 1830, and by 1842 Schítsu'umsh were cultivating a superior strain of potatoes in the fertile soil of the Spokane Valley (Geyer 1846; Thwaites 1906:365–367). The first Catholic mission to the Schítsu'umsh was established by Father Nicolas Point in 1842. Some Indian families who resided on the mission grounds allowed their

children to be boarded at the mission and trained in practical farming skills by the Catholic priests (Palmer 1998a, 2001). Time spent living and working at the mission would have deprived the children of opportunities to learn Snchítsu-'umshtsn terms for native plants in the course of traditional hunting and gathering, and it would have introduced them to French and English terms for European domesticated plants.

The largest loss of language and botanical terms probably occurred after 1876, when the Schítsu'umsh settled on farms in the southern part of their aboriginal territory. In 1878 their children began to attend the mission boarding school at DeSmet, where speaking Snchítsu'umshtsn was prohibited and a massive loss of language ensued (Frey 2001; Palmer 2001). Today, only a very small number of tribal members still speak the aboriginal language fluently. Given this long history of contact with the overwhelming political and cultural forces of Euroamerican society, we are lucky that the remaining sample of Snchítsu'umshtsn plant names and botanical knowledge is so substantial.

METHODS AND SOURCES

Sources.—Those data that are previously unpublished were collected by the first author over the course of dozens of visits to the Coeur d'Alene reservation and Spokane, Washington, during the years 1978 to 1983. The purpose of the research was to study the ethnohistory of the Schítsu'umsh and to produce native language instructional materials. Due to the importance of native plants to historical and contemporary tribal members, ethnobotanical information frequently surfaced in the interviews and casual encounters. All of the consultants, with the exception of one non-Indian person who grew up in a Schítsu'umsh household, were native speakers of Snchítsu'umshtsn, or of Spokane or Kalispel dialects of Kalispel. A total of 15 persons were interviewed. Of these, 14 were knowledgeable tribal elders. Of these elders, ten were ethnically Schítsu'umsh, three were Spokane, and one was Kalispel. Several consultants are now deceased.

Some Spokane materials are included in this paper. While the focus of this study was Schítsu'umsh ethnohistory, interviews and informal discussions often took place in mixed groups of Snchítsu'umshtsn and Spokane speakers and some persons are of mixed ancestry. Furthermore, Schítsu'umsh and Spokanes have probably always had some knowledge of one another's languages and cultures, so it seems best not to try to separate Schítsu'umsh and Spokane ethnobotany too rigidly.

Full sources for each term are listed in "Ethnobotany of the Schítsu'umsh (Coeur d'Alene)," an unpublished paper by the authors. Documentation for Coeur d'Alene includes Nicodemus (1975a, 1975b), Reichard (1938, 1939), and Teit (1930). Cognates were drawn primarily from Boas (1890, 1925), Carlson and Flett (1989), Gibbs (1877), Giorda (1879), Kuipers (1975, 1983), Mattina (1987), Nater (1977, 1990), Palmer (1975), Thompson and Thompson (1996), various publications of Nancy J. Turner and associates, but especially Turner et al. (1980), Turner et al. (1983), Turner et al. (1990), and from Vogt (1940) and the following unpublished papers in possession of M. Dale Kinkade:

Jan van Eijk. 1978. Lillooet Stem List.
Tilly George. n.d. Classified Word List for the B.C. Indian Languages.
M. Dale Kinkade. 1964–1990. Columbian field notes.
———. 1987–91. Thompson class notes.
Larry Pierre and Martin Louie. 1973. Classified Word List for the Okanagan Language.
Sarah G. Thomason. 1990. Salish Dictionary.

Etymologies and Morphological Analyses.—Etymologies and morphological analyses are often problematic. An apparently obvious analysis of a root or substantive suffix may be etymologically invalid as revealed when a term is compared to its cognates in other languages. One can have confidence in a gloss when it is attested by native speakers. One can have confidence in an etymology only when the glossed meaning is attested by native speakers and the analysis is also supported by comparative evidence. Etymological and interpretive guesses are marked with a preceding question mark in Appendix 1. Guesses are generally made only where some known characteristic of the plant fits the interpretation of the root. Where one can have little confidence in an analysis of the linguistic root, a question mark appears in the morphological analysis. Full sources and reasons for analyses are presented in Palmer et al. (n.d.).

LINGUISTIC MORPHOLOGY OF SNCHÍTSU'UMSHTSN PLANT NAMES

We have divided the terms into simple and complex terms. The former category, which is by far the most numerous, refers to a kind of term that we designate *simple lexemes.* The set of "simple lexemes" intersects with the set defined by the previously discussed taxonomic notion of the "composite specific lexeme," for reasons that will be illustrated in the subsection on suffixes. The latter includes both *complex lexemes* and terms that are actually phrases. These categories will be defined more precisely below.

Simple Lexemes.—Simple lexemes comprise the vast majority of terms. By "simple lexeme" is meant a term that can be analyzed as a linguistic root plus, optionally, one or more prefixes and substantive suffixes. The designation excludes compound terms, complex verbal predications (even if they are single lexemes), and terms consisting of multiple words. A morphological analysis of 106 of the known plant terms in Snchítsu'umshtsn can be found in Appendix 1. The vast majority of terms, 97 of them, are simple lexemes by our definition. The term "simple lexeme" might be a bit misleading, because it includes not only terms such as (22) *etqhwe'* 'edible blue camas', which is unanalyzable, but also terms that may have a number of prefixes and suffixes, such as (7b) *stmarímłpecht* 'subalpine fir (and/or grand fir)', which has the morphological structure shown below (phonetic spelling):

s-	*ł-*	*marím*	*-əłp*	*-ečt*
NOM-	attached	medicine	plant	whole.hand~branch

This term also illustrates the difficulty of deciding what to count as a plant name. Term (7b) actually refers to the branches of the tree that has the morpho-

TABLE 1.—Frequency of affixes in simple lexemes.

Morphology	Affix	Frequency
Prefixes	s- NOMINALIZER	30
	n- 'in'	3
	č- 'on, distributed'	1
	t- 'on, attached'	1
Suffixes	*-ilp, -elp, -lp* 'plant'[a]	19
	-alq^{w} 'tree, bush'	10
	-qn, -qi 'head'	6
	-t INHERENT	6
	-m MIDDLE	4
	-iye, -iye? 'playingly'	3
	-mn INSTRUMENTAL	3
	-us 'face, eye'	2
	-əlš 'arc motion'	2
	-i ?	2
	-ul'mx^{w} 'ground, earth'	2
	other	16[b]
Reduplication[c]	augmentative	24
	intensifying	3

[a] The vowel is lowered before uvulars and pharyngeals.

[b] The following suffixes occurred once each: *-á, -asiq* 'wild crop', *-axn* 'arm', *-c'e?* 'skin, covering', *-eč* 'arm, hand, branch', *-elp* (?), *-elps* 'throat, mane', *-enč* 'belly, bank', *-ilk*^{w}*e?* 'in water', *-i?l* 'source of', *-iwas* 'waist, between', *-n* NOM, *-p* INCH, *-ú, -umš* 'people', *-us* 'fire'.

[c] Augmentative reduplication copies the linguistic root or its first three segments. The semantics of the augmentative include "DISTRIBUTIVE, PLURAL, and CHARACTERISTIC" (Doak 1997:29). Intensifying reduplication copies only the first two segments of the root. It "implies an intensified condition" (1997: 28).

logical analysis listed in (7a) √*marím-alp-alq*^{w} 'subalpine fir (and/or grand fir)', with which it shares the linguistic root and a suffix (*marím-alp*). Terms such as (7b), which refer to plant parts or to important products of the plant, are often given by consultants as the name of the plant. In this instance, because the terms are related linguistically, they are counted as one, but analyses of both are presented in Appendix 1 and all affixes are listed in Table 1.

Linguistic roots. All the terms called simple lexemes must have a linguistic root or stem, but in 28 cases the meaning of the root or stem is unknown or not well substantiated.[6] The transcriptions of terms found in Teit (1930) often lacked the necessary precision for analysis. For 42 terms, the only meaning of the linguistic root is the conceptualization of the plant to which the term refers (Table 2).

For 29 terms (simple lexemes only) the meaning of the linguistic root is different from the referent plant itself (Table 3). Terms of this type with roots having meanings such as 'rustle', 'barb', and 'medicine' can be termed descriptive. Of the descriptive roots, the largest category (8 terms) is that referring to color or light. The senses include 'white', 'blue', 'pink' (2 terms), 'glow' (2 terms), 'dark', and 'paint'. Other senses include those of change or motion ('grow', 'revolve', 'rustle'), use ('medicine', 'good', 'gather', 'paint', 'canoe'), taste, smell, and texture ('sweet', 'rotten', 'foam'), danger ('barb', 'thorn', 'hurt'), plants or plant parts ('grass', 'leaf', 'barb', 'thorn'), and death ('ghost', 'corpse'). Senses of the remaining terms include 'straight' and 'wrap string'. Thus, it appears that utilitarian aspects of plants do

TABLE 2.—Meanings of linguistic roots as referent plant (simple lexemes only).[a]

4	Rocky Mountain juniper	65	pea
5	western red cedar	69	wild gooseberry
10	white-bark pine	70	mock orange
13	ponderosa pine	77	serviceberry
14	Douglas-fir	81	oceanspray
16	wapato	82	apples
18	skunk cabbage	83	plum
21	onion	84	bitter cherry
22	edible blue camas	85	chokecherry
24	Indian hellebore	86	peach
26	grass	88a	wild rose
28	barley	88b	wild rose
32	poison-ivy	89	wild rose
36	cous	90	wild raspberry
38	Indian celery, *Lomatium nudicaule*	91	blackcap
39	biscuitroot	96	cottonwood
48	pineapple weed	99	willow
52	hazelnut	100	willow
54	blue elderberry	101	wild tobacco
56	red willow	102	potato
61	kinnikinnick	107	black birch

[a] Numbers are keyed to item numbers in Appendix 1.

not dominate the senses of linguistic roots. Perceptual qualities are also important. In fact, it is often difficult to separate the two. For example, there is obvious utility in recognizing the shape of a thorn.

Prefixes. Simple lexemes have two types of prefix: the nominalizer *s-* and the spatial prefixes *č-* 'on, distributed', *t-* 'on, attached', and *n-* 'in'. Conspicuously missing from the spatial prefixes of these terms are *ni?-* 'amidst', *cn-* 'under', and *čet-* 'on something broader than itself', all of which occur frequently in place names and anatomical terms (Palmer 1993; Palmer and Nicodemus 1985).[7] A total

TABLE 3.—Meanings of linguistic roots where meaning is other than referent plant (simple lexemes only).[a]

6	ghost	51	leaf
7	medicine	55	corpse/dead
8	pink	57	wrap string
12	canoe	60	foam
15	bow	63	sweet
20	raw	64	white
29	grass	67	hurt
27	grow	68	revolve
30	gather	71	rotten
34	good	75	paint
35	glow	79	thorn
37	glow	80	pink
44	dark	92	inverted concave object
46	barb	94	straight
50	blue	98	rustle

[a] Numbers are keyed to item numbers in Appendix 1.

of 30 of the 98 simple terms have the prefix *s-* (Table 1). Other terms whose linguistic roots begin with *s* may have the prefix as well, but there is no way of knowing. Why (77) *sƚaq* 'serviceberry' uses the *s-*, but a similar term, (85) *ƚáx̣ʷƚax̣ʷ* 'chokecherry', does not, is unknown, but it might involve free variation in assimilation of the initial consonant.

Prefixes with spatial meanings occur on only five names. The prefixes are *n-* 'in', *č-* 'on (distributed)', and *ƚ-* 'on (attached)'. Thus, spatial constructs cannot be rated highly important in the construction of plant terms. Three terms have the prefix *n-* 'in'. Since the meaning of other elements in these constructions is unknown, it is not possible to clarify the semantic function of the *n-* prefix in plant names. Only one term has the prefix *ƚ-* 'on (attached)'. Here, in term (7b) *stmaríntlpečt* 'subalpine fir (and/or grand fir)', it seems to describe an attachment to a branch. The prefix *č-* 'on (distributed)' is also found in only one term, (75), analyzed as *s-č-√nir*$_{(\text{CAUS})}$*-mn* 'sagebrush buttercup', which has a linguistic root referring to paint. The fact that these prefixes are so rare in plant names suggests that the architecture of the plants has little importance in naming.

Reduplication can also be regarded as a kind of affixation. Augmentative reduplication adds a new copy of the linguistic root (or the first three segments of it). It occurs in most instances as a prefix to the root, but sometimes as a suffix.[8] Examples include *√dúƚ-dut-p* (rustle-AUG.RDP-INC) 'poplar tree or trembling aspen' and *√ƚek'ʷ-ƚek'ʷ-t* (AUG.RDP-barb-INH) 'n. thistle, cactus'. According to Doak (1997:29), augmentative reduplication denotes actions or qualities that are distributive, plural, or characteristic. It occurs in a total of 24 of the simple terms. In five cases, the meaning of the root that is duplicated is the referent plant itself. Descriptive roots that are duplicated include those with meanings of 'rustle', 'stink', 'white', 'glow', 'good', 'dark', 'gather', 'thorn', 'straight', and 'corpse', a group which seems to have nothing much in common, either semantically or phonetically.

The intensive reduplication construction, which copies only the first two segments of the linguistic root, appears in three terms. The only one for which the meaning of the linguistic root is clear is (57) *t-ʔa-√ʔáx̣-c'eʔ*, where it means 'wrap string'. It is interesting that this must be a new term, as it refers to the domesticated cantaloupe.

Suffixes. The suffixes of Snchítsu'umshtsn plant terms have a variety of linguistic functions ranging from nominal classification as plant or tree (~bush), to anatomical topographical description, locative description, and some more abstract senses involving verbal aspect and linguistic voice. The most commonly occurring suffix (19 instances) is **-alp* 'plant' (Table 1). It occurs with linguistic roots having both descriptive and referential meanings. The suffix should probably be regarded as a classifier that, in this language, contrasts with **-alqʷ* 'tree, bush'. There are 10 terms with **-alqʷ*. Term (61b) *álčałpalqʷ* 'kinnikinnick' has both suffixes: /*√ʔí:lč-alp-alqʷ*/ (kinnikinnick-plant-tree~bush).[9] "Simple lexemes" that have substantive or classificatory suffixes *-alp*, *-alqʷ*, and *-astq* 'berry' also fit the definition of the "composite specific lexeme" discussed in the introductory subsection on *Plant Names in Salishan Languages*, but those with substantive, but nonclassifying suffixes such as *-qn* 'head', *-us* 'face, eye', *-aχn* 'arm', *-c'eʔ* 'skin, covering', *-ečt* 'arm, hand, branch', *-elps* 'throat, mane', *-enč* 'belly, bank', *-ƚúas* 'waist,

between', *-əlš* 'arc motion', and *-iye/-iye?* 'playingly', do not qualify as "composite *specific* lexemes." Simple lexemes with these suffixes may best be compared to the analyzable primary lexeme of Berlin et al. (1973) or the complex unitary lexeme of Conklin (1969), but the correspondence is imperfect, as terms of this type are usually descriptive, unlike the metaphorical example of "Jack-in-the-pulpit."

The next most common substantive suffix is *-qn* (~*-qí*) 'head', with six instances. Rather than a classifier, *-qn* seems to be used to locate a quality on the fruiting body of a plant or at the top of a tree. For the two terms that can be fully analyzed, the meanings seem to be *scratch on head~top* (48) 'pineapple weed', and *grass on head~top* (29) 'wheat'.

Also occurring with some frequency (6 terms) is the aspectual suffix *-t*, which denotes something inherent. Among the terms whose linguistic roots are known, it is suffixed to 'ghost', 'barb', 'stink', 'straight', and 'poison ivy' (suggesting that the linguistic root *p'ul* may have simply meant 'poison' before it acquired the meaning 'poison ivy'.)

The remaining suffixes cover a gamut of senses. Two of these appear to refer to motion or action: *-əlš* 'arc motion' and *-iye/-iye?* 'playingly', perhaps referring to wavy or undulating leaves. Anatomical suffixes in addition to 'head' include *-us* 'face, eye', *-axn* 'arm', *-c'e?* 'skin, covering', *-ečt* 'arm, hand, branch', *-elps* 'throat, mane', *-enč* 'belly, bank', and *-ičəs* 'waist, between'. None is used with any great frequency. The fact that anatomical suffixes occur only 14 times in 98 simple lexemes shows that anatomical topographical concepts were significant but not primary in plant naming. Locatives include *-ul'mxʷ* 'ground, earth', *-ilkʷe?* 'in water', and *-i?t* 'source of'.

Hunn (1985) has emphasized the importance of utilitarian concerns in plant classification. If utilitarian concerns were dominant, one would expect the majority of plant names to reflect important uses. One might expect a high frequency of instrumental suffixes and utilitarian looking linguistic roots. In fact, at the generic level, only six terms have roots with clearly utilitarian meanings. These are (7) 'medicine', (12) 'canoe', (15) 'bow', (30) 'gather', (34) 'good', and (75) 'paint'. One might also argue that (63) 'sweet' is utilitarian. The only clearly utilitarian suffixes are *-mn* 'used for' and *-astq* 'wild crop'. However, it is possible that some of the unanalyzable linguistic roots were once utilitarian markers. Names warning of unpleasant or dangerous qualities could also be regarded as utilitarian, as with (46) 'barb', (71) 'rotten', (79) '?thorn', and possibly (32) 'poison ivy', if *p'ul* does in fact derive from a former root meaning 'poison'.

At higher taxonomic levels, two terms appear to have utilitarian motivation: *syólalqʷ* 'tree' is based on the root *yel* 'pitch', and *st'šastq* 'berries' is the same as the term for black huckleberry, which has the root *t'əš* 'sweet'. This small number of terms and affixes argues that utilitarian concerns are not the primary factor in Snchítsu'umshtsn plant naming, or in classification to the extent that it is reflected in naming. It may well be that utilitarian concerns govern the decision of whether or not to name, but they do not appear to govern the semantics or grammatical structure of plant names to any significant degree.

Substantive suffixes of Snchítsu'umshtsn are often truncated to a single vowel— *-e, -i,* or *-u*—usually (perhaps always) stressed in final position. When this

happens, it is impossible to recover the meaning, as there are always several candidates for the original. There are four instances in these data.

Complex Terms.—Among the 106 Snchítsu'umshtsn plant names, only eight have structures that we have termed "complex." These include the compound descriptive lexemes such as (97) *dareɬdúɬdulp* 'poplar (trembling aspen)' that compound two linguistic roots. The term is analyzable as *dar-et-√dúɬ-dul-p* (containers.stand-CONN-rustle-AUG.RDP-INC). A bit more complex is the verbal predication (19) *lmt'aplc'e?encótn* 'pineapple', meaning 'what shoots self through inside', analyzable as *n-√t'ap-ɬc'e?-n-cút-n* (in-shoot-inside-TR-REFL-NOM). Term (58) *ni?šarusi?utm* 'squash', is analyzable as *ni?-√šar-us-i?-ut-m* (amidst-hang-fire-?-be.in.position-MDL) 'hang in fire.'[10] It is probably no coincidence that these are both domestic plants introduced by Europeans, though it is just possible that squash had some other source, since it originates in the New World.

Four of the terms have the structure of a phrase. The simplest of these is (49) *χal sgʷarpm* 'common dandelion' is translatable as 'lie.in.order bloom'. A similar term, but more complex, is (42) *χalńnak'ʷa?al'qs ha sgʷarpm* 'daisy' perhaps translatable as 'little blossoms that lie in rows on the ridge'. The phrasal term (93) *sngʷáfus xʷe e tíltell'mxʷ* 'descendent of blackberry vine' (boysenberry) is the only recorded Snchítsu'umshtsn plant term that classifies using the principle of kinship, as suggested by the gloss 'descendent'.

COGNATE PLANT NAMES IN INTERIOR SALISH LANGUAGES

All the Interior Salish languages have plant names that are cognate with Snchítsu'umshtsn terms. Their distribution appears to be best described as a cline decreasing in frequency in rough order from Kalispel in the east to Stl'atl'imx (Lillooet) in the west (Table 4). The number of cognates drops off sharply with Stl'atl'imx, a phenomenon that has been noticed and discussed by Turner et al. (1998). There are 53 known cognate plant terms in Kalispel and 46 in Nsilxtsin (Okanagan-Colville). These correspond closely in their distribution. Nxa?amxcín (Columbian) follows with 34 cognates. Of those, 33 also have cognates in either Okanagan-Colville or Kalispel or both. Of the northern Interior Salish languages, Secwepemc (Shuswap) has 25 cognates, Nlaka'pamux (Thompson) 29, and Stl'atl'imx (Lillooet) 13. Proto-Interior Salish forms have been reconstructed for 24 of these terms. Proto-Salishan forms can be reconstructed with confidence for nine and with less confidence for 13. Very few borrowings from Sahaptian languages are evident. Terms (36) *ká?us* 'cous, biscuitroot' and (38) *péqai* '*Lomatium nudicaule*' are from Nez Perce. Another possibility is (78) *kʷela** 'red hawthorn' (cf. *kulakula*).[11] The Nez Perce term *k'ʷɬawi* 'onion' was more likely borrowed from a Salish cognate of (20) *qʷəɬtwəl'š* 'onion'.

Inspection of exactly which plants are named in the majority of Interior Salish languages may help us undersand the naming process. Terms which have cognates in all seven languages are as follows:

(4) *puntp*, Rocky Mountain juniper
(11) *qʷoqʷo?lɬ?t*, lodgepole pine

(14) *c'âq'alp*, Douglas-fir
(52) *q'ip'x^{w}e?*, hazelnut
(60) *sx̣úsm*, soapberry
(91) *məcúk^{w}*, blackcap
(101) *smi?lx^{w}*, wild tobacco

Terms which have cognates in six of the seven languages, including Snchítsu'umshtsn include the following:

(7) *marámɬpalq^{w}*, subalpine fir (and/or grand fir)
(8) *céq^{w}lš*, western larch
(13) *ýátq^{w}elp*, ponderosa pine
(20) *q^{w}əlíwəl'š*, onion (*Allium* sp.)
(45) *snúk^{w}a?cn**, balsamroot
(54) *c'ék^{w}ak^{w}*, blue elderberry
(74) *sp'it'cm*, bitterroot
(81) *məcməcí?elp*, oceanspray
(96) *mulš*, cottonwood

These two groups of high-frequency cognates (totaling 16 terms) include eight tree names, three berry bushes, one economically important bulb, and two economically important taproots. The trees, and oceanspray, have economic importance in providing materials for buildings and manufactured items and as sources of food and medicine. This group of high-frequency cognates suggests size, value in manufacturing dwellings and tools, subsistence value, and medicinal/ceremonial value (i.e., subalpine fir and wild tobacco) as features that promote the entrenchment, retention, and widespread distribution of names (though not necessarily their taxonomic construction). Food plants such as hazelnut, soapberry, and bitterroot were also important in trade (Teit 1930:112; Turner and Loewen 1998), as was wild tobacco, which was apparently not grown by the Snchítsu'umshtsn (Teit 1930:113). Balsamroot was utilized for its taproots, greens, and seeds.

Six terms—(22) edible blue camas, (33) cow parsnip, (70) mock orange, (84) bitter cherry, (88a) wild rose, and (26) grass—have cognates in five of the seven languages, including Snchítsu'umshtsn. These lower frequency terms contain no trees and one major food source (edible blue camas). Grass was economically important for the grazing of deer and horses. The hard wood of mock orange was used for making a number of small tools. Details can be found in the listing of plant terms (Appendix 1).

All these counts of cognates must be evaluated with some caution as plant names have been recorded more thoroughly in some languages than others. Stl'atl'imx (Lillooet), Nlaka'pamux (Thompson), and Secwepemc plant terms have received more study than Nxa?amxcín, Kalispel, and Snchítsu'umshtsn.

SUMMARY AND CONCLUSIONS

The prototypical Snchítsu'umshtsn plant name consists of a linguistic root plus a substantive suffix. Typical examples are (13) *y'átq^{w}elp*, /*s-√?etq^{w}-alp*/ (pon-

TABLE 4.—Cognates in Interior Salishan languages.[a]

#	Snchítsu'umtsn name	English or Latin name	PS	PI	LI	TH	SH	CV	CM	KA
1	*séčečt*	black tree lichen	·	·	·	·	·	·	x	·
2	*sicse:ciye*	lichen	·	·	·	·	·	·	·	·
3	*he st'ede? te t'úx^{w}n*	horsetails	·	x	·	x	x	·	·	x
4	*puntp*	Rocky Mountain juniper	·	x	x	x	x	x	x	x
5	*k'^{w}áysalq^{w}*	western red-cedar	·	·	·	·	·	·	·	·
6	*sk'^{w}ust*	western red-cedar	·	·	·	·	·	·	·	·
7a	*marámtpalq^{w}*	subalpine fir	x	x	x	·	x	x	x	x
8	*céq^{w}lš*	western larch	·	x	·	x	x	x	x	x
9	*šaxšaxt*	Engelmann spruce	·	·	·	·	·	·	·	·
10	*suwístč*	white-bark pine	·	·	·	·	·	·	·	·
11	*q^{w}oq^{w}o?li?t*	lodgepole pine	·	x	x	x	x	x	x	x
12	*t'áda?alq^{w}*	white pine	·	·	·	·	·	x	·	x
13	*ýátq^{w}elp*	ponderosa pine	·	x	?	x	x	x	·	x
14	*c'áq'alp**	Douglas-fir	x	x	x	x	x	x	x	x
15	*ʔacečýálq^{w}**	yew	·	·	·	·	·	·	·	·
16	*sqíq^{w}cs*	wapato	·	·	x	·	·	x	·	x
17	*qex^{w}qex^{w}əlšáiye?**	skunk cabbage	·	·	·	·	·	·	·	·
18	*tímu?*	skunk cabbage	?	·	·	·	x	x	·	x
19	*lnt'apłc'e?encótn*	pineapple	·	·	·	·	·	·	·	·
20	*q^{w}əltwəl'š*	onion	·	x	x	x	x	x	·	x
21	*sisč*	onion	·	·	·	·	·	x	x	x
22	*?étx^{w}e?*	edible blue camas	·	x	·	x	·	x	x	x
23	*č'átwəx**	tiger lily	?	·	·	x	·	·	·	x
24	*slaq'mn*	Indian hellebore	·	·	·	·	·	x	·	x
25	*səc'sečíyə*	Indian hellebore	·	·	·	·	·	·	·	·
26	*st'éde?*	grass	·	x	·	·	x	x	x	x
27	*sq'i?c'ul'mx^{w}*	crab grass	·	·	·	·	·	·	·	·
28	*nors*	barley	·	·	·	·	·	·	·	·
29	*st'áda?qn*	wheat	·	·	·	·	·	·	·	·
30	*q'^{w}ósq'^{w}əs**	cat-tail	·	·	·	·	·	x	x	x
31	*squnxt*	vine maple	·	·	·	·	·	·	·	·
32	*p'ulp'últúmš*	poison-ivy	·	·	·	·	·	·	·	·
33	*x̌^{w}óx^{w}lp*	cow parsnip	·	·	·	·	x	x	x	x
34	*x̌ásx̌əs*	Canby's lovage	·	x	·	x	·	x	·	x

TABLE 4.—Continued.

#	Snchítsu'umtsn name	English or Latin name	PS	PI	LI	TH	SH	CV	CM	KA
35	*p'ex^{w}pux^{w}*	white camas	·	·	·	·	·	·	·	x
36	*kâ?us*	cous (NP)	·	·	·	·	·	x	·	·
37	*sp'éx^{w}enč*	desert parsley	·	·	·	x	·	x	·	x
38	*péqai**	barestem lomatium (NP)	·	·	·	·	·	·	·	·
39	*ptwye*	biscuitroot	·	·	·	·	·	·	·	x
40	*st'úq^{w}nt**	wild caraway	·	·	·	·	·	x	x	x
41	*dmdmu?qeyni?*	yarrow	·	·	·	·	·	·	·	·
42	*x̣alńńnak^{w}u?al'qs ha sg^{w}arpm*	pussytoes, etc.	·	·	·	·	·	·	·	·
43	*p'up'u?nelp*	northern wormwood	·	·	·	x	x	·	·	x
44	*q^{w}əl'q^{w}əl'mnłp*	big sagebrush	·	·	·	·	·	x	·	x
45	*smúk^{w}a?cn**	balsamroot	·	·	·	x	x	x	x	x
46	*lek'^{w}łuk'^{w}t*	wild thistles	·	·	·	x	x	x	·	·
47	*marłupa**	wavy-leaved thistle	·	·	·	·	·	·	·	·
48	*ncł'cil'x^{w}qí*	pineapple weed	·	·	·	·	·	·	·	x
49	*x̣al sg^{w}arpm*	dandelion	·	·	·	·	·	·	·	·
50	*sq^{w}éyu?*	Oregon-grape	·	·	·	·	·	·	x	x
51	*spičlená:**	paper birch	·	·	·	·	·	·	·	x
52	*q'ip'x^{w}e?*	hazelnut	x	x	x	x	x	x	x	x
53	*sámpəqn**	black twinberry	·	·	·	·	·	·	·	·
54	*c'ék^{w}ək^{w}*	blue elderberry	x	x	·	x	x	x	x	x
55	*təmtəmní?elp*	snowberry	·	·	·	·	·	x	x	x
56	*stichtskhw*	red willow	·	·	·	·	·	x	x	x
57	*tʕa?áx̣c'e?*	cantaloupe	·	·	·	·	·	·	·	·
58	*ni?šarusi?utm*	squash	·	·	·	·	·	·	·	·
59	*smax̣^{w}nélp**	silverberry	·	·	·	·	·	·	·	·
60	*sx̣^{w}úsm*	soapberry	·	x	x	x	x	x	x	x
61	*?ílč*	kinnikinnick	·	x	x	x	x	·	·	·
62	*st'eq'?n*	dwarf blueberry	x	·	·	·	·	·	·	·
63	*st'əšástq*	black huckleberry	·	·	·	·	·	x	·	x
64	*paqpaq̓áx̣n*	huckleberry	·	·	·	·	·	x	·	·
65	*lípowe:*	garden pea	·	·	·	·	·	·	·	·

TABLE 4.—Continued.

#	Snchítsu'umtsn name	English or Latin name	PS	PI	LI	TH	SH	CV	CM	KA
66	*snč'ímásmas*	frasera	·	·	·	·	·	·	·	·
67	*sc'érus*	golden currant	·	·	·	·	·	x	x	x
68	*yaŕčń**	squaw currant	·	·	·	·	·	x	x	x
69	*ḥnt'ít'me?ips**	wild gooseberry	x	x	·	·	·	·	x	x
70	*wăxi?ɬp*	mock orange	·	x	·	x	·	x	x	x
71	*naq'naq'telp*	Canada mint	·	·	·	·	·	x	x	x
72	*láq'nxʷ**	spring beauty	·	·	·	·	·	·	·	·
73	*sqʷétm**	*Claytonia* sp.	·	·	·	·	·	·	·	·
74	*sp'ít'em*	bitterroot	·	x	·	x	x	x	x	x
75	*sčnê?rmn*	sagebrush buttercup	·	·	·	·	·	x	x	x
76	*stč'i:háyus*	buttercup	·	·	·	·	·	·	·	·
77	*sɬaq*	serviceberry	·	·	·	·	·	x	·	x
78	*kʷela**	red hawthorn	·	·	·	·	·	·	·	·
79	*sxʷtú?nečʼ**	black hawthorn	·	·	·	·	·	x	x	x
80	*scáqʷm*	wild strawberry	·	·	·	x	·	·	·	·
81	*məcməcí?elp*	oceanspray	?	x	·	x	x	x	x	x
82	*s?áplsalqʷ*	apple	·	·	·	·	·	·	·	·
83	*plámsalqʷ*	plum	·	·	·	·	·	·	·	·
84	*pəčlén**	bitter cherry	·	x	·	x	x	x	x	·
85	*láxʷɬəxʷ**	chokecherry	?	·	·	·	·	x	·	x
86	*píčus*	peach	·	·	·	·	·	·	·	·
87	*t'əšilépa**	*Prunus* sp.	·	·	·	·	·	·	·	·
88a	*sxʷá:yapa?qn**	wild rose	·	·	·	x	·	x	x	x
89	*qal'xelp*	wild rose	x	·	x	·	·	·	·	·
90	*ḥnhalu:cé?*	wild raspberry	·	·	·	·	·	·	·	x
91	*məcúkʷ*	blackcap	x	x	x	x	x	x	x	x
92	*pólpolqn*	thimbleberry	·	·	·	·	·	x	x	x
93	*sngʷárus xʷe e tíl-tel-l'nxʷ*	boysenberry	·	·	·	·	·	·	·	·
94	*tíltell'nxʷ*	*Rubus* sp.	·	·	·	·	·	·	·	·
95[a]	·	·	·	·	·	·	·	·	·	·
96	*mulš*	cottonwood	·	x	x	x	x	x	·	x
97	*darelduldulp*	trembling aspen	·	·	·	·	·	·	·	·

TABLE 4.—Continued.

#	Snchitsu'umtsn name	English or Latin name	PS	PI	LI	TH	SH	CV	CM	KA
98	*dúldutp*	trembling aspen	·	·	·	·	·	·	·	·
99	*dél'elp*	willow	·	·	·	·	·	·	·	·
100	*q'ólsalqʷ*	willow	·	x	·	x	x	·	·	x
101	*smi?lxʷ*	wild tobacco	x	x	x	x	x	x	x	x
102	*pa:táq*	potato	·	·	·	·	·	·	·	·
103	*másməs*	edible valerian	·	·	·	·	·	·	·	·
104[a]	·	·	·	·	·	·	·	·	·	·
105	*pičelúsa**	a root	·	·	·	·	·	·	·	·
106	*sk'ʷaχ̣k'ʷaχ̣elkʷa?*	a water plant	·	·	·	·	·	·	·	·
107	*taχ̣taχ̣ilp*	black birch	·	·	·	x	·	·	x	·
108	*t'eptptelp*	a berry	·	·	·	·	·	·	·	·

[a] Numbers are keyed to item numbers in Appendix 1. CM = Columbian (Nxa?amxcín), CV = Okanagan-Colville (Nsilxtsin), LI = Lillooet (Stl'atl'imx), SH = Shuswap (Secwepemc), KA = Kalispel (Spokan, Kalispel, and Flathead dialects), TH = Thompson (Nlaka'pamux), PI = Proto-Interior Salish, PS = Proto-Salish. Terms (95) and (104) omitted as they are Spokan.

derosa pine) and (63) *st'šastq*, /*s-√t'əš-astq*/ (black huckleberry). As in these examples, there may also be a nominalizing prefix and/or one or more spatial prefixes and/or a stem-forming suffix, such as *-t* 'inherent'. Reduplications of the linguistic root are common. The plant names display a more limited set of spatial prefixes than are found in the domains of place names and anatomical terms.

A variety of substantive suffixes occur. The largest categories, involving 29 of the 103 simple lexemes, establish a division into terms with the suffixes *-alp* 'plant' (19 terms) and those with *-alqʷ* 'tree~bush' (10 terms). However, the structure of one term—*álčalpalqʷ* 'kinnikinnick'—that combines the two suffixes suggests that *-alp* 'plant' may be the more general classifier, having the sense of "green or leafy plants." It appears in the names of herbs (cow parsnip, Canada mint), small or low shrubs (snowberry, silverberry, big sagebrush, northern wormwood) as well as several larger shrubs or bushes (wild rose, mock orange, ocean spray, willow) and trees (Rocky Mountain juniper, ponderosa pine, Douglas-fir, cottonwood, black birch). The suffix *-alqʷ* specifies plants that take the form of a tree or a bush, more often the former, or perhaps it is simply applied to those for which the notion of pole is most salient. The corresponding suffix *-álex̲w* translates as 'wood' in Nsilxtsin (Okanagan-Colville) (Turner et al. 1998). This is one respect in which classification in Snchítsu'umshtsn may differ from other Salishan languages. In the Salishan languages having the 'plant' suffix, this is most often applied to various species of trees and shrubs, especially those with berries or other important cultural resources.

Fourteen of the simple lexemes in Snchítsu'umshtsn have anatomical suffixes, including seven instances of *-qn* (~*-qł*) 'head', which, like English, has a metaphorical extension to 'top'. Non-hierarchical taxonomic relations are rare among the Snchítsu'umshtsn plant terms, but one instance of a plant as the descendant of blackberry vine occurs in a complex term. Only two terms have locative suffixes other than the anatomical suffixes, which can often be regarded as locative. Notably absent from the classificatory suffixes of Snchítsu'umshtsn is *-usa?* 'berry, face, eye, round thing', which can be found in neighboring Salishan languages (Palmer 1998b). Snchítsu'umshtsn does possess the related suffix *-us* 'face, eye', but it does not occur in the recorded plant names except as a pun in (86).

It appears that there is a term that stands for conifers in general, and that is term (13) *ýátqʷelp*. This term also has the more specific referent ponderosa pine. The general term for any tree is *syólalqʷ*, a term which suggests generalization of an earlier term limited to conifers (*s-yél-alqʷ* NOM-pitch-tree~log~pole). The general term for berries is *stšastq*, which is also the term for (63) black huckleberry. The general term for a bush or shrub is *eedel'*.

There seems to be no free lexeme that covers all trees, shrubs, and herbs, only the suffix *-alp* (~ *-əlp*, *-lp*). This is a common pattern among Interior Salish languages (Turner 1987, 1988). The suffix is found in all the languages and used in many names (see, for example the tree names in Turner et al. 1998). In Stl'atl'imx (Lillooet) it coexists with a more common form *-az'*, which apparently has the same meaning (Ex. Stl'atl'imx *cáx-az'*/*c'q'ʷ-əlp* 'Engelmann spruce'). The 'log, pole' suffix (*-alqʷ*) occurs much less frequently in the Interior Salish tree names, but it is found in clearly recognizable form in all but Stl'atl'imx and Nlaka'pamux (Thompson). The latter has the possible cognate forms *-alx*, *-áyqʷ*, and *-yəqʷ*.

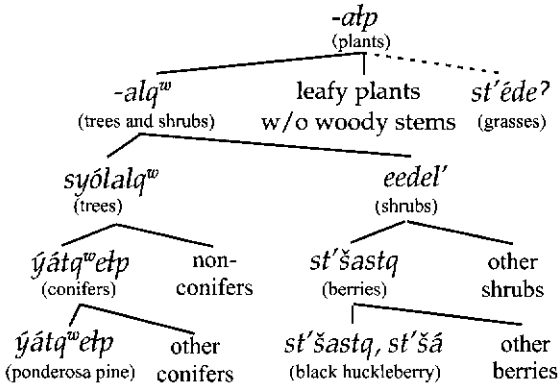

FIGURE 2.—Taxonomy of plant forms in Snchítsu'umshtsn. (Fungi and lichens not included. Dotted line indicates hypothetical inclusion.)

In Columbian the only tree name that has the *-alq^w* suffix is 'jack pine'. Otherwise it is found on terms for 'fruit trees', 'bump into a tree', 'go under a log', 'peck at a tree', 'grave marker', 'train', 'twisted tree', 'a tree hit by lightning', 'logs', 'round like a pole', 'roll up one's sleeves', 'cradle of a scythe', 'tall', and others. It even occurs on words for 'short'. The suffix *-alp* occurs on many tree and plant names, and comes closest in Columbian to being a suffix for 'tree'. However, it is also the suffix to indicate the plant on which particular berries grow, as opposed to the berries themselves. In a few cases it may not be divisible, that is, the root to which it is attached is not found elsewhere in the language, as in terms for 'juniper' and 'spruce'. It also occurs with 'tall sunflower', 'skunk cabbage', 'pine grass', 'wild lupine', 'sand bur plant', and three unidentified plants, and it is used for counting plants. This distribution suggests that the taxonomic diagram in Figure 2 must be evaluated with some caution, as the function of the *-alp* and *-alq^w* suffixes seems as much classificatory (differentiating by form or part within a genus or species) as taxonomic (differentiating by genus and species).

We have not explored the extensions of these terms with native speakers of Snchítsu'umshtsn in a systematic fashion, but given these facts and our understanding of the suffixes *-alp* and *-alq^w*, we can still posit a taxonomy something like that in Figure 2. This taxonomy agrees generally with the classification of plants implied by Okanagan mythology (Turner et al. 1980). There, the category of "bushes, flowers, and trees" subdivides into categories of "trees with leaves" and "trees without leaves." The chief of the latter is white pine and of the former, Rocky Mountain maple. In Snchítsu'umshtsn one can propose a taxonomic hierarchy of five levels, but the classifying suffixes (*-alp* and *-alq^w*) that partially structure the hierarchy appear in only a minority (29) of the terms, as described above.

Describing Fraser River Lillooet, Turner (1974) found eight life forms, including 'trees' (divided into 'with leaves' and 'evergreens'), 'berries', 'flowers', 'grasses (and grass-like plants)', 'mosses', 'mushrooms and fungi', 'weeds', and 'roots (and underground parts, including poisonous types)'. Only trees, evergreens, berries, flowers, grasses, mosses, and weeds are given general terms. Trees with leaves are unnamed, as are roots and underground parts. The Snchítsu'umshtsn classi-

fication depicted in Figure 2 appears to support Turner's observations in a general way. Trees are divided into conifers (evergreens) and non-conifers. There are general terms for trees, conifers, grasses, shrubs, and berries, but not, as in Fraser River Lillooet, for trees with leaves or for roots. In addition there are suffixes for plants in general, and for trees and shrubs as a single category. It is possible that Snchítsu'umshtsn also has or had general terms for mosses, mushrooms and fungi, and weeds, but we do not have the data to confirm it.

Most terms whose derivations are clear are descriptive constructions involving linguistic roots specifying some attribute of color or light (eight terms), taste, smell, shape, danger, motion, texture, or use. Two pertain to death and ghosts. Utilitarian concerns are present, but not primary. The infrequent usage of spatial prefixes ('in', 'on, attached', 'on, distributed', 'amidst', etc.) in descriptive terms suggests that conceptualizations of plant structure play little role in their naming. These findings are similar to those reported by Palmer (1998b) for Secwepemc, in which 45 of 144 recorded terms were descriptive. Of the 45 descriptive terms, 33 were based on the perceptual characteristics of appearance (30) and smell (3), with the remaining few terms classified as danger or irritation (6), usefulness (5), and behavioral (1). In general, the terms bear out Randall's (1976) observation that, rather than storing elaborate taxonomic hierarchies directly in memory, people typically store only the perceptual characteristics of classes. However, utilitarian concerns may be primary in the entrenchment and widespread distribution of a few names, that is, those with the greatest number of cognates in neighboring languages. The Snchítsu'umshtsn terms provide some support for Berlin's (1992: 21) generalization that "*names for plants and animals commonly allude metaphorically to some typical morphological, behavioral, ecological, or qualitative characteristic feature of their referents*" [italics in original], but this generalization is so inclusive as to be almost vacuous.

At least six of the terms may involve borrowings from European languages, three of these apparently from French, reflecting the influence of Father Point and other missionaries, and three from English, probably reflecting experiences subsequent to 1876. These include terms for barley, pea, and potato from French and apple, peach, and plum from English.[12] Terms for the crops wheat and alfalfa do not appear to be borrowings. Borrowings from English can provide an occasion for puns, as in the rendering of peaches in Snchítsu'umshtsn as *píč-us*, which can be construed as 'peach face'.

Interior Salish plant names that are cognate with Snchítsu'umshtsn forms are distributed along a cline of decreasing frequency from Kalispel in the east to Stl'atl'imx in the west, providing support for the conclusions of Turner et al. (1998). The 16 terms with cognates in at least six of the seven languages include names for eight trees (six of which are conifers), three berry bushes, one edible bulb and two edible taproots. At first glance, size, value in manufacturing, and subsistence value appear to be the major factors in their wide distribution, but other factors, such as trade and continuity of distribution on the landscape may be involved as well. Such utilitarian factors may motivate the creation and use of plant names, but they do not appear to govern the grammatical structure of plant names as categorizing symbols.

NOTES

[1] Snchítsu'umshtsn < *s-n-čícu?umš-cn*, NOM-in-Coeur.d'Alene.people-mouth.or.language, i.e., 'Coeur d'Alene language'. The stem term Schítsu'umsh (Coeur d'Alene) has been translated by Lawrence Nicodemus as 'discovered people'. In the Coeur d'Alene community orthography, the stress is usually indicated with an underline, e.g., Schitsu'umsh. Other names of ethnic groups are presented in their own community orthographies. We judged it to be an impossible task to resolve all the Salish orthographies into one.

Names of plants discussed in the text are presented in the Americanist orthography, which is discussed in the Appendix. The names may appear in analyzed form, as in the Appendix (second entries), or the unanalyzed form as they appear in Table 4, column 2. The use of the Americanist orthography was necessary to enable discussion of morphemes that are often only partially represented in the community orthography.

[2] Nlaka'pamux is a community spelling of */nɬaʔkápmax/*.

[3] An anonymous reviewer made this suggestion.

[4] The list also contains two Spokane terms, bringing the total of plant names in Table 1 to 108.

[5] It is quite possible that plant names that are known to a few living speakers of Snchítsu'umshtsn have not yet been recorded.

[6] Terms 1, 2, 9, 11, 17, 23, 25, 31, 33, 40, 41, 43, 45, 47, 53, 59, 62, 72–74, 76, 78, 87, 94, 100, 103, 105, 106. See Appendix 1.

[7] The spatial prefix *ni?-* 'amidst' occurred in (58), but it is omitted here because (58) is a complex term by our definition.

[8] The syllable lacking stress or having a reduced vowel is taken as the copy.

[9] Apparently, at least at the time the field work was conducted, the term *ilch* or the longer form indicating a bush *qlchalpalqw* could be used for either the wild cranberry or kinnikinnick. Nicodemus (1975a:111) has "ilch, n. red berries, knick-knick berries, wild cranberry." In (1975b:355) he has "wild cranberry, n. ilch" and "cranberry (wild), n. alchałpalqw" (145).

[10] Ray Brinkman and Felix Aripa, personal communication, Language Preservation Program, Office of Education, Coeur d'Alene Tribe of Idaho, Plummer, Idaho, 2000.

[11] Possible Nez Perce cognates or borrowings supplied by a reviewer.

[12] Naomi F. Miller suggested that *nors* 'barley' might derive from French *orge*.

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REFERENCES CITED

Berlin, Brent. 1992. *Ethnobiological Classification: Principles of Categorization of Plants and Animals in Traditional Societies.* Princeton University Press, New Jersey.

Berlin, Brent, Dennis E. Breedlove, and Peter H. Raven. 1973. General principles of classification and nomenclature in folk biology. *American Anthropologist* 75: 214–242.

Boas, Franz. 1890. [Tillamook, Nehalem, and Siletz texts.] Manuscript, May M. Edel Collection, Manuscript Collection, The University of Washington Libraries, Seattle, Washington.

———. 1925. Comparative Salishan vocabularies. D. 1628 strips of paper. Boas Collection, American Philosophical Society Library.

Bright, Jane O. and William Bright. 1969. Semantic structures in northwestern California and the Sapir-Whorf hypothesis. In *Cognitive Anthropology,* ed. Stephen A. Tyler, pp. 66–78. Holt, Rinehart and Winston, Inc., New York.

Brown, Cecil H. 1984. *Language and Living Things: Uniformities in Folk Classification and Naming.* Rutgers University Press, New Brunswick, New Jersey.

Carlson, Barry F. and Pauline Flett. 1989. *Spokane Dictionary.* University of Montana Occasional Papers in Linguistics 6. University of Montana, Missoula.

Conklin, Harold C. 1969. Lexicographical treatment of folk taxonomies. In *Cognitive Anthropology,* ed. Stephen A. Tyler, pp. 41–59. Holt, Rinehart and Winston, Inc., New York.

Doak, Ivy. 1997. Coeur d'Alene Grammatical Relations. Ph.D. Dissertation (Linguistics), The University of Texas at Austin.

Ellen, Roy F. 1986. Ethnobiology, cognition and the structure of prehension: some general theoretical notes. *Journal of Ethnobiology* 6:83–93.

Elmendorf, William. 1965. Linguistic and geographic relations in the Northern Plateau area. *Southwestern Journal of Anthropology* 21(1):63–78.

Fowler, Catherine S. 1972. Some ecological clues to proto-Numic homelands. In *Great Basin Cultural Ecology: A Symposium,* ed. Don D. Fowler, pp. 105–121. Desert Research Institute Publications in the Social Sciences No. 8, Reno.

Frey, Rodney. 2001. *Landscape Traveled by Coyote and Crane. The World of the Schítsu'umsh (Coeur d'Alene Indians).* University of Washington Press, Seattle/London.

Geyer, Charles. 1846. Notes on vegetation and general character of the Missouri and Oregon Territories, made during a botanical journey from the state of Missouri across the south-pass of the Rocky Mountains, to the Pacific, during the years 1843 and 1844. Transcript copied from the *London Journal of Botany* 4:479–524. Washington State University, Pullman.

Gibbs, George. 1877. Dictionary of the Niskwalli. Linguistics (Appendix to Tribes of Western Washington and Northwestern Oregon). In *Contributions to North American Ethnology*, volume I, part II, pp. 285–361. Government Printing Office, Washington.

Giorda, J. 1879. *A Dictionary of the Kalispel or Flat-head Indian Language*. St. Ignatius Print, St. Ignatius, Montana.

Hinton, Leanne. 1994. *Flutes of Fire: Essays on California Indian Languages*. Heydey Books, Berkeley, California.

Hunn, Eugene. 1976. Towards a perceptual model of folk biological classification. *American Ethnologist* 3:508–524.

———. 1985. The utilitarian factor in folk biological classification. In *Directions in Cognitive Anthropology*, ed. Janet W.D. Dougherty, pp. 117–140. University of Illinois Press, Urbana and Chicago.

———. 1998. Mixtepec Zapotec ethnobiological classification: a preliminary sketch and theoretical commentary. *Anthropologica* 40:35–48.

Johnson, Robert E. 1975. The Role of Phonetic Detail in Coeur d'Alene Phonology. Ph.D. Dissertation (Anthropology), Washington State University, Pullman.

Kuipers, Aert H. 1975. *A Classified English Shuswap Word-List*. The Peter de Ridder Press, Lisse.

———. 1983. *Shuswap-English Dictionary*. Peeters, Leuven.

Mattina, Anthony. 1987. *Colville-Okanagan Dictionary*. University of Montana Occasional Papers in Linguistics 5. University of Montana, Missoula.

Nater, H.F. 1977. *Stem List of the Bella Coola Language*. PdR Press Publications on Salish Languages 4. The Peter de Ridder Press, Lisse.

———. 1990. *A Concise Nuxalk-English Dictionary*. Canadian Ethnology Service, Mercury Series Paper 115. Canadian Museum of Civilization, Hull, Quebec.

Nicodemus, Lawrence G. 1975a. *Snchítsu'umshtsn: The Coeur d'Alene Language, Volume I*. University Press, Spokane, Washington.

———. 1975b. *Snchítsu'umshtsn: The Coeur d'Alene Language, Volume 2*. University Press, Spokane, Washington.

Palmer, Gary B. 1975. Shuswap Indian ethnobotany. *Syesis* 8:29–81.

———. 1993. "Where there are muskrats": the semantic structure of Coeur d'Alene place names. *Linguistic Anthropology* 32(3–4):263–294.

———. 1998a. Coeur d'Alene. In *Handbook of North American Indians, Volume 12, Plateau*, ed. Deward E. Walker, Jr., pp. 312–326. Smithsonian Institution, Washington, D.C.

———. 1998b. Foraging for patterns in Interior Salish semantic domains. In *Studies in Salish Linguistics: Current Perspectives*, eds. Ewa Czaykowska-Higgins and M. Dale Kinkade, pp. 349–386. Mouton de Gruyter, Berlin/New York.

———. 2001. Indian pioneers: the settlement of *Ni'lukhwalqw* (Upper Hangman Creek, Idaho) by the *Schítsu'umsh* (Coeur d'Alene Indians). *Oregon Historical Quarterly* 102:22–47.

Palmer, Gary B. and Lawrence Nicodemus. 1985. Coeur d'Alene exceptions to proposed universals in anatomical nomenclature. *American Ethnologist* 12:341–359.

Palmer, Gary B., M. Dale Kinkade, and Nancy J. Turner. n.d. Ethnobotany of the Schítsu'umsh (Coeur d'Alene). Unpublished manuscript in preparation.

Randall, Robert A. 1976. How tall is a taxonomic tree? Some evidence for dwarfism. *American Ethnologist* 3:543–553.

Reichard, Gladys. 1938. *Coeur d'Alene. Handbook of American Indian Languages*. J.J. Augustin, New York.

———. 1939. Stem list of the Coeur d'Alene language. *International Journal of American Linguistics* 10:92–108.

Suttles, Wayne and William Elmendorf. 1963. Linguistic evidence for Salish prehistory. In *Symposium on Language and Culture. Proceedings of the 1962 Annual Spring Meeting of the American Ethnological Society*, eds. Viola E. Garfield and Wallace L. Chafe, pp. 42–52. University of Washington Press, Seattle.

Teit, James A. 1930. *The Coeur d'Alene*. Bureau of American Ethnology, Anthropological Records 55. Washington, D.C.

Thompson, Laurence C. and M. Terry Thompson. 1996. *Thompson River Salish Dictionary: nle?kepmxcín*. University of Montana Occasional Papers in Linguistics 12. Missoula, Montana.

Thwaites, Rueben Gold, ed. 1906. *Early Western Travels 1748–1846*. The Arthur H. Clark Company, Cleveland.

Turner, Nancy J. 1974. Plant taxonomic sys-

tems and ethnobotany of three contemporary Indian groups of the Pacific Northwest (Haida, Bella Coola, and Lillooet). *Syesis* 7:1–104.

———. 1987. General plant categories in Thompson and Lillooet, two Interior Salish languages of British Columbia. *Journal of Ethnobiology* 7:55–82.

———. 1988. Ethnobotany of coniferous trees in Thompson and Lillooet Interior Salish of British Columbia. *Economic Botany* 42:177–194.

———. 1989. All berries have relations. Mid-range folk plant groupings in Thompson and Lillooet Interior Salish. *Journal of Ethnobiology* 9:69–110.

Turner, Nancy J., Randy Bouchard and D.I.D. Kennedy. 1980. *Ethnobotany of the Okanagan-Colville Indians of British Columbia and Washington*. British Columbia Provincial Museum Occasional Paper No. 21. Victoria.

Turner, Nancy J., Marianne Boelscher Ignace, and Brian D. Compton. 1998. Secwepemc (Shuswap) tree names: key to the past? In *Studies in Salish Linguistics: Current Perspectives*, eds. Ewa Czaykowska-Higgins and M. Dale Kinkade, pp. 387–417. Mouton de Gruyter, Berlin/New York.

Turner, Nancy J. and Dawn C. Loewen. 1998. The original "free trade": exchange of botanical products and associated plant knowledge in northwestern North America. *Anthropologica* 40:49–70.

Turner, Nancy J. and Roy L. Taylor. 1972. A review of the Northwest Coast tobacco mystery. *Syesis* 5:249–257.

Turner, Nancy J., John Thomas, Barry F. Carlson, and Robert T. Ogilvie. 1983. *Ethnobotany of the Nitinaht Indians of Vancouver Island*. British Columbia Provincial Museum Occasional Papers Series No. 24. Victoria.

Turner, Nancy J., Laurence C. Thompson, M. Terry Thompson, and Annie Z. York. 1990. *Thompson Ethnobotany: Knowledge and Usage of Plants by the Thompson Indians of British Columbia*. Royal British Columbia Museum Memoir No. 3. Victoria.

Vogt, Hans. 1940. *The Kalispel Language: An Outline of the Grammar with Texts, Translations, and Dictionary*. Det Norske Videnskaps Akademi i Oslo, Oslo.

APPENDIX 1.—SNCHÍTSU'UMSHTSN PLANT TERMS AND COGNATES

Plant terms in this appendix are divided into botanical groups (lichens, horsetails, conifers, and flowering plants, the last including monocotyledons and dicotyledons). Within these groups, they are alphabetized by botanical family, genus, and species names. Identification of botanical genus and species may be positive (no marker), probable (marked with following *), or possible (**). Each unique Snchítsu'umshtsn name (or Spokane name in two cases) is given a number. The data format for each numbered name is as follows:

scientific name (common English name)
(#) Snchítsu'umshtsn name in community orthography, (morphological analysis), (morpheme glosses)

Morphological analyses and morpheme glosses are not always possible. In the morphological analysis field, morphemes are separated by hyphens. Morphemes may be formed by reduplications (RDP), which generally operate on the roots by complete reduplication, reduplication of consonants with vowel reduction, or partial morpheme reduplications of either initial or final segments. Linguistic roots are prefixed with the √ symbol. In a reduplication, if the first instance were stressed, it would be labeled as the root and the RDP marker would follow. For an explanation of Snchítsu'umshtsn reduplication, see Doak (1997:27–29).

In the morpheme gloss field, the gloss for each morpheme is separated from

its predecessor or follower by a hyphen. Alternative glosses of a single morpheme are separated by a tilde (~). The words of phrases are linked by periods. For example, the expression *on-RDP-wind~wrap.string.evenly-skin* has three morpheme glosses, if one does not count the reduplication. The gloss for the second morpheme has two alternatives: *wind* and the phrase *wrap.string.evenly*. The reduplication applies to the second morpheme, as will be evident from inspecting the phonetic form and the morphological analysis, which flags the linguistic root. Linguistic terms in glosses are abbreviated as follows: ART=article; AUG=augmentative; CONN=connective; CONT=continuative; DEM=demonstrative; DIM=diminutive; GLOT=glottalized; INC=inchoative; INH=inherent; INT=intensive; MDL=middle; NOM=nominative; POSS=possessive; PROX=proximate deictic; RDP=reduplication; REFL=reflexive; REM=remote deictic; TR=transitive; VB=verbal; VOL=volition.

The Snchítsu'umshtsn terms recorded in this study appear in three orthographies: a community orthography, a contemporary Americanist linguistic orthography (a modified version of the International Phonetic Alphabet), and the linguistic orthography used by James Teit (1930). Stress is marked where the information is available, but terms taken from documentary sources do not always indicate stress and stress could not always be determined in the field. Plant names are provided in the community orthography in the appendix for non-linguists. The contemporary linguistic orthography is used for precise phonetic description and for morphological analysis. Teit's orthography is used for terms that he recorded, but these are also presented in the other orthographies.

The Snchítsu'umshtsn community orthography used by Nicodemus (1975a, 1975b) is generally consistent, but it omits reduced vowels [ə] or [ɪ]. Consequently, there is some ambiguity in the proper placement of glottals, which are written as apostrophes, but this can usually be resolved by resort to morphological analysis with concomitant reference to the English glosses. In the appendix, phonetic forms and morphological analyses reconstructed from the community orthography are flagged with a star (*) after the word; the star before a word indicates a proto-form reconstructed by means of the comparative method of linguistics. The Nicodemus orthography underlines vowels to indicate stress. The "(" character is pharyngeal [ʕ]. When writing glottalized consonants and semivowels, apostrophes are placed before sonorants—*'l, 'm, 'n, 'w, 'y, '(* and *'(w*—but apostrophes follow the voiceless stop consonants *k', p', q', t'*. The phonemes are written *a, b, ch, ch', d, e, gw, h, i, j, k, k', kw, k'w, khw, l, ł, m, 'm, n, 'n, o, p, p', q, q', qw, q'w, qh, qhw, r, 'r, s, sh, t, t', ts, ts', u, w, 'w, y, 'y, (, (w, '(, '(w*. This is also the sorting order, except that the parenthesis is ignored.

In the Americanist orthography the phonemes are written as follows: (voiceless stops and affricates) *p, t, c, č, k^w, q, q^w, ʔ*; (glottalized stops and affricates) *p', t', c', č', k'^{w}, q', q'^{w}*; (voiced stops and affricate) *b, d, g^w, j*; (voiceless continuants) *s, ł, š, x^w, χ, χ^w, h*; (resonants) *m, n, l, r, w, y, ʕ, ʕ^w*; (glottalized resonants) *m̓, n̓, l', r̓, w̓, y̓, ʕ', ʕ^w'*; (vowels) *i, e, a, u, o, ə*. In order to facilitate comparisons to other languages and simplify the transcriptions, the Snchítsu'umshtsn mid-front vowel that is often written with epsilon ɛ is here written with *e*; the open ɔ is here written as *o*.

Teit's (1930) phonetic transcriptions may be unreliable. He seems to have often

failed to distinguish glottalizations, labialization of consonants, rounding of vowels, and postvelar from velar consonants. Forms reconstructed from Teit's orthography, like those reconstructed from the community orthography, are flagged with a star (*) after the word. Teit used a straight apostrophe after the vowel to mark stress. His *ă* is [æ], which is usually written *e* in contemporary Salish orthography. His *ĕ* is schwa [ə]. The alveolar and palatal affricates which Teit wrote as *ts* and *tc* are written as *ts* and *ch* in practical orthographies and *c* and *č* in the Americanist linguistic orthography. The palatal fricative which he wrote as *c* is *š* in the Americanist orthography.

Due to the fact that plant names and other information were collected in the course of ethnohistorical and ethnolinguistic studies not specifically focused on ethnobotany, identifications are based on the authors' prior knowledge of local species and no voucher specimens have been deposited for curation.

LICHENS

Bryoria fremontii (Tuck.) Brodo & D. Hawksw. (black tree lichen)
(1) *sech'echt, séč'-ečt,* ?-hand~branch

?Peltigera sp. (lichen)
(2) *sitsseetsiye,* √*sic-sic-iyi??*-AUG.RDP-playingly

HORSETAILS

Equisetaceae (horsetail family)

Equisetum spp. (horsetails, or scouring rushes)
(3) *he st'ede' le t'ukhwen, he st'ede? le t'úxʷn,* POSS grass REM horsetail

CONIFERS

Cupressaceae (cypress family)

Juniperus scopulorum Sarg.* (Rocky Mountain juniper)
(4) *punłp,* √*pun-łp,* ?-plant

Thuja plicata Donn. (western red-cedar)
(5) *k'wa'ysalqw,* √*k'ʷ áys-alqʷ, ?-tree*

Thuja plicata Donn.** (western red-cedar)
(6) *sk'ust,* s-√*k'ʷ us-t,* NOM-ghost-INH

Pinaceae (pine family)

Abies lasiocarpa (Hook.) Nutt., *A. grandis* (Dougl.) Lindl. (subalpine fir and/or grand fir)
(7a) *maramłpalqw,* √*marím-alp-alqʷ,* medicine-plant-tree
(7b) *stmarimłpecht, s-t-*√*marím-łp-ečt,* NOM-attached-medicine-plant-whole.hand~branch

Larix occidentalis Nutt. (western larch)
(8) *tsəqwlsh, √céqʷ-lš,* pink-motion.in.horseshoe.curve

Picea engelmannii Parry *ex* Engelm. (Engelmann spruce)
(9) *shaqhshaqhtalp, šaχ-√šaχ-t-alp,* AUG.RDP-?-INH-plant

Pinus albicaulis Engelm. (white-bark pine)
(10) *suwistch*, suwístč**

Pinus contorta Dougl. *ex* Loud.* (lodgepole pine)
(11) *qoqo'li't, qʷo-√qʷol'-í?t,* INT.RDP-?-source[1]

Pinus monticola Dougl. *ex* D. Don (white pine)
(12) *t'ada'alqw, √t'éde?-alqʷ,* canoe-tree

Pinus ponderosa Dougl. *ex.* Loud.* (ponderosa pine, yellow pine)
(13) *'yatqwelp, s-√étqʷ-elp,* NOM-?-plant

Pseudotsuga menziesii (Mirb.) Franco var. *glauca* (Beissn.) Franco (Douglas-fir)
(14) *ts'aq'alp, √ćaq̓-alp,* bunched~clumped-tree[2]

Taxus brevifolia Nutt. (yew)
(15) *(atsech'nalqw*, √ʕac-ičɨ̓-álqʷ,* tied-back-plant (bow-plant)

FLOWERING PLANTS—MONOCOTS

Alismataceae (water-plantain family)

Sagittaria latifolia Willd. (wapato, arrowleaf)
(16) *sqigwts, s-√qígʷc,* NOM-wapato

Araceae (arum family)

Lysichiton americanum Hultén & St. John (skunk cabbage)
(17) *qekhwqekhwlshiye', qexʷ-√qexʷ-əlš-íye?,* AUG.RDP-?stink-arc.motion-playingly
(18) *timu', tímu?*

Bromeliaceae (bromeliad family)

Ananas comosa (L.) Merr. (pineapple)
(19) *hnt'aplts'e'entsotn, n-√t'ap-łc'e?-n-cút-n,* in-shoot-inside-TR-REFL-NOM; 'what shoots self through inside' Reichard (1938:222)

Liliaceae (lily family)

Allium sp. (onion)
(20) *qwliw'lsh, qʷəlíwəl'š,* raw

Allium sp., *A. douglasii* Hook.** (onion)
(21) *sisch, sisč*

Camassia quamash (Pursh) Greene (edible blue camas)
(22a) *etqhwe', ?étχʷe?, ?átχʷe?*
(22b) *sqha'wlutqhwe*, s-√χíw-al-?itχʷa?,* NOM-raw-CONN-cooked.camas

Lilium columbianum Hanson *in* Baker* (tiger lily or Columbia lily)
(23) *ch'ạwqlh**, *č'áwəx̣**

Melanthiaceae (melanthium family)

Veratrum viride Ait. (Indian hellebore), very toxic
(24) *slaq'mn*, *s-√laq'-mn*, NOM-?-used for[3]
(25) *sits'sechiye*, *√səc'seč-iyə*, ?-playingly

Poaceae or Gramineae (grass family)

A common Interior Salish form for grass resembles the Okanagan form *swupúla'xw* 'ground hair'. Nicodemus (1975a:81) lists the cognate form *gupụ'lmkhw*, but he defines it as a verb: 'vt. It (ground) is covered with much grass'. Very likely it could have been nominalized with the *s-* prefix to *sgupụ'lmkhw*. In Moses Columbian, *st'iya?* is any tall grass, but short grasses are *suwpul'ex*^{w}, literally 'hair on the ground'.

grass (various kinds of forage, including grasses and the legumes alfalfa and clover)
(26) *st'ẹde'*, *s-√t'éde?*, NOM-grass

Digitaria sp.** (crab grass)
(27) *sq'i'ts'u'lmkhw*, *s-√q'i?c'-ul'mx*^{w}, NOM-grow-on.the.ground

Hordeum vulgare L. (barley)
(28) *nors*, *nors*, possibly from Fr. *orge*

Triticum aestivum L. (wheat)
(29) *st'ạda'qn*, *s-√t'áda?-qn*, NOM-grass-head

Typhaceae (cat-tail family)

cat-tail, or bulrush (*Typha latifolia* L.)*
(30) *q'wọsq'ws**, *√q'^{w}és-q'^{w}əs*, AUG.RDP-gather

FLOWERING PLANTS—DICOTS

Aceraceae (maple family)

Acer circinatum Pursh** (vine maple) or *Acer glabrum* Torr. (Rocky Mountain maple)
(31) *sqwaxt*

Anacardiaceae (sumac family)

Toxicodendron radicans (L.) Kuntze; syn. *Rhus radicans* L. (poison ivy)
(32) *p'ulp'ultụmsh*, *p'uł-√p'ul-t-úmš*, AUG.RDP-poison.ivy-INH-people

Apiaceae or Umbelliferae (celery family)

Heracleum lanatum Michx. (cow parsnip or Indian rhubarb)
(33) *qhọqhlp*, *√x̣^{w}óx̣^{w}ə-lp*, ?-plant

Ligusticum canbyi Coult. & Rose* (Canby's lovage)
(34) *qhaṣqhs, √x́ás-x̱əs*, good-AUG.RDP

Lomatium canbyi Coult. & Rose** (white camas)
(35) *p'ɛ̱khwp'ukhwˀ √p'éxʷ-p'exʷ*, glow-AUG.RDP

Lomatium cous (Wats.) Coult. & Rose* (cous, or biscuitroot)
(36) *kaʟ'us, ká?us*

Lomatium macrocarpum (Nutt.) Coult. & Rose (desert parsley)
(37) *sp'ɛ̱khwɛnch, s-√p'éxʷ-enč*, NOM-light~glow-belly~bank

Lomatium nudicaule (Pursh) Coult. & Rose** (barestem lomatium or Indian celery)
(38) *pɛ̱qai*, péqai**, prob. equivalent to N.P. *péqiy* (*L. triternatum* (Pursh) Coult. & Rose var. *triternatum*)

Lomatium sp. (biscuitroot)
(39) *piwye, piwye~piúwɛə*

Perideridia gairdneri (H. & A.) Mathias** (wild caraway or Indian carrot)
(40) *st'uqom**, *s-√t'úqʷ-m*[5], NOM-?-MDL

Asteraceae or Compositae (aster or composite family)

Achillea millefolium L.** (yarrow)
(41) *dndmu'qeyni', dem-√dem-u?-qin-í?*, AUG.RDP-?old-?-head-NOM

Antennaria spp., *Erigeron* spp., *Aster* spp.** (pussytoes, fleabane, aster)
(42) *qhaln'n'nak'ux̱a'lqs ha sgwarpm, x̱aln (n-√nekʷ -alqs)*DIM.GLOT *ha sgˣarpm*, lie.in.order (DIM.RDP-one-spur~ridge)DIM.GLOT POSS bloom

Artemisia frigida Willd.* (northern wormwood)
(43) *p'up'u'nelp, (p'u-√p'un -ilp)*DIM.GLOT, INT.RDP-?-plant

Artemisia tridentata Nutt. (big sagebrush)
(44) *qw'lqw'lmnɨlp, qʷəl'-√qʷəl'-mn-ilp*, AUG.RDP-dark-used.for-plant

Balsamorhiza sagittata (Pursh) Nutt.* (balsamroot or spring sunflower)
(45) *smukwa'tsn**, *smúkʷa?cn**

Cirsium brevistylum Cronq. and other spp. (wild thistles) and other spiny plants, e.g., *Opuntia fragilis* (Nutt.) Haw. and *O. polyacantha* Haw. (prickly-pear cactus)
(46) *ɬek'wɬuk'wt, √ɬek'ʷ-ɬek'ʷ-t*, AUG.RDP-barb-INH

Cirsium undulatum (Nutt.) Spreng.* (wavy-leaved thistle)
(47) *mariupa**, *maríupa**

Matricaria matricarioides (Less.) Porter* (pineapple weed)
(48) *hnts'ltsi'lkhwqi, n-cel'-√cel'xʷ-qɨn*, in-AUG.RDP-?-head

Taraxacum officinale Weber** (common dandelion) or *Agoseris* sp.** (mountain dandelion)

(49) *qhal sgaarpm, ɣal sgʷarpm,* lie.in.order bloom

Berberidaceae (barberry family)

Mahonia aquifolium (Pursh) Nutt.; syn. *Berberis aquifolium* Pursh (Oregon-grape)
(50) *sqweyu', s-√qʷéy-u?,* NOM-blue.or.green-?

Betulaceae (birch family)

Betula papyrifera Marsh.* (paper birch)
(51) *spichłeng, s-√pičłen-álqʷ*,* NOM-?leaf-tree

Corylus cornuta Marsh.* (hazelnut)
(52) *q'ip'khwe', q'ip'xʷe?*

Cactaceae (cactus family). See (46).

Caprifoliaceae (honeysuckle family)

Lonicera involucrata (Rich.) Banks *ex* Spreng.* (black twinberry, or twinflower honeysuckle)
(53) *sampqn*, sámpqn**

Sambucus cerulea Raf.* (blue elderberry) and/or *S. racemosa* L.* (red elderberry)
(54) *ts'ekuku, ts'ek'uku, c'ékʷək'ʷ*

Symphoricarpos albus (L.) Blake (snowberry or waxberry)
(55) *tmtmnt'elp, √tmtmnt?-elp,* corpse-plant

Cornaceae (dogwood family)

Cornus stolonifera Michx. (red willow or red-osier dogwood)
(56a) *stichtskhw, s-√tičcxʷ,* NOM-?
(56b) *stichtskhwelp*[6], s-√tičcxʷ-élp,* NOM-?-?plant

Cucurbitaceae (cucumber family)

Cucumis melo L. (cantaloupe)
(57) *tła(qghts'e', t-ła-√łáɣ-c'e?,* on-INT.RDP-wind~wrap.string.evenly-skin

Cucurbita pepo L. (squash)
(58) *nišharusi'utm, ni?-√šar-us-i?-ut-m,* amidst- hang-fire-?-be.in.position-MDL

Elaeagnaceae (oleaster family)

Elaeagnus commutata Bernh.** (silverberry)
(59) *smqhwnelp*, s-√maxʷ-n-elp*,* NOM-?snowbound-?NOM-plant

Shepherdia canadensis (L.) Nutt. (soapberry or soopolallie)
(60) *sqhusm, s-√xʷús-m,* NOM-foam-MDL

Ericaceae (heather family)

Arctostaphylos uva-ursi (L.) Spreng. (kinnikinnick)
(61a) *ilch, ʔílč*
(61b) *alchaɬpalqw, √ʔíːlč-iɬp-alqʷ*, wild.cranberry-plant-tree~bush

Vaccinium caespitosum Michx.* (dwarf blueberry)
(62) *stʼeqʼtn, s-√tʼeqʼt-n**, NOM-?-NOM

Vaccinium membranaceum Dougl. *ex* Hook. (black huckleberry)
(63) *stʼshastq, stʼsha, s-√tʼəš-ástq*, NOM-sweet-crop

Vaccinium sp. (huckleberry)
(64) *paqpaqaqhn, paq-√paq-áχn*, AUG.RDP-white-arm?

Fabaceae (pea family)

Pisum sativum L. (garden pea)
(65) *lipowee, lipowe:*, from the Fr. *le pois*

Gentianaceae (gentian family)

Frasera sp.** (frasera)
(66) *snchʼtmasms**, *s-nič-ɬ-másməs**, NOM-cut-CONN-*másməs*. See also (103).

Grossulariaceae (gooseberry family)

Ribes aureum Pursh** (golden currant)
(67) *stsʼerus, s-√cʼér-us**, NOM-hurt-face~eye

Ribes cereum Dougl.* (squaw currant)
(68) *yarchʼn**, *√yár-čn**, revolve~round-back

Ribes sp.* (wild gooseberry)
(69) *hntʼitʼʷmelʼps, n-tʼi-√tʼem-elps*, in-INT.RDP-?-throat~mane

Hydrangeaceae (hydrangea family)

Philadelphus lewisii (Pursh) Rydb.* (mock orange)
(70) *waqhiʼtp, √wexiʔ-ɬp*, ?-plant

Lamiaceae or Labiatae (mint family)

Mentha arvensis L., syn. *Mentha canadensis* L.** (Canada mint or field mint)
(71) *naqʼnaqʼteɬp, naqʼ-√naqʼ-t-eɬp*, AUG.RDP-rotten-INH-plant

Portulacaceae (purslane family)

Claytonia lanceolata Pursh* (spring beauty)
(72) *ɬaqʼmkhw**, *ɬáqʼmxʷ**

Claytonia sp.
(73) *sqwetm**, *s-√qʷét-m*, NOM-?-MDL

Lewisia rediviva Pursh (bitterroot)
(74) *spʼitʼem, s-√pʼitʼ-m*, NOM-?smooth,slick-MDL

Ranunculaceae (buttercup family)

Ranunculus glaberrimus Hook.* (sagebrush buttercup)
(75) *schnefmn, s-č-√nir*$_{(CLOT)}$*-mn*, NOM-on-paint$_{(INC)}$-used.for

Ranunculus sp. (buttercup)
(76) *stch'iihayus, s-t-√č'i:hây-us*, NOM-attached-?-face~eye~fire[8]

Rosaceae (rose family)

Amelanchier alnifolia Nutt. (serviceberry or saskatoonberry)
(77) *słaq, s-√łaq*, NOM-serviceberry

Crataegus columbiana Howell* (red hawthorn or red thornberry)
(78) *kwela**, *k^{w}ela**

Crataegus douglasii Lindl. (black hawthorn)
(79a) *sqhu'nech, s-√x^{w}ə?neč**, NOM-?thorn
(79b) *sqhu'qhu'nichelp, s-x^{w}ə?-√x^{w}ə?níč-elp**, NOM-AUG.RDP-?thorn-plant

Fragaria virginiana Duchesne, *F. vesca* L. (wild strawberry)
(80) *stsaqwm, s-√cáq^{w}-m*, NOM-pink-MDL

Holodiscus discolor (Pursh) Maxim.* (oceanspray)
(81) *mtsmtsi'elp, mc-√mec-i?-elp*, AUG.RDP-?-NOM-plant

Malus sylvestris Mill. var. *domestica* (Borkh.) Mansf. (apple)
(82) *s'aplsalqw, s?äplsalq^{w}, s-√?ápls-alq^{w}*, NOM-apples-tree, from Eng.

Prunus domestica L. (plum)
(83) *plamsalq[w], √plâms-alq^{w}*, plum-tree

Prunus emarginata (Dougl.) Walpers (bitter cherry)
(84) *pchłen*, pəčłén**

Prunus virginiana L. var. *demissa* (Nutt.) Torr. (chokecherry)
(85) *łaqhwołuqhw, √łáx^{w}-łəx^{w}*, ?-AUG.RDP

Prunus persica (L.) Batsch (peach)
(86a) *pichus, píčus, √píč-us* peach-face (evidently a pun from folk etymology)
(86b) *spechasalqw, s-péčas-alq^{w}*, NOM-peaches-tree

Prunus sp.
(87) *t'shilepa**, *t'əšilépa**

Rosa acicularis Lindl., *Rosa woodsii* Lindl. and other *Rosa* spp. (wild rose)
(88a) *skhwaayapa'qn, s-x^{w}á:yapa?-qn**, NOM-rose-HEAD
(88b) *sqwaayapa', sq^{w}áyapa?**
(88c) *sqaypaqn, sqaypáqn*
(89) *qa'lqhelp, √qal'x-elp*, rose-plant

Rubus idaeus L. (wild raspberry)
(90) *lmhalaatse', n-√hala:cé?*, in-?

Rubus leucodermis Dougl. *ex* T. & G. (blackcap)
(91) *mtsuka, məcúkʷ*

Rubus parviflorus Nutt. (thimbleberry)
(92) *polpolqn, √pul-pul-qn,* *invert.concave.object-AUG.RDP-head

Rubus hybrid (boysenberry)
(93) *sngwa'rus khwe e tilteł'lmkhw, sngʷárus xʷe e til-teł-l'mxʷ,* descendant PROX ART straight-AUG.RDP-on.the.ground

Rubus sp.
(94) *tilteł'lmkhw, √til-til-l'mxʷ,* straight-AUG.RDP-on.the.ground

Spiraea betulifolia Pall.** (flat-topped spiraea)
(95) *chkw'lkwi'lqw* (Spokane), *č-kʷɪ?l-√kʷɪ?l-alqʷ,* on-AUG.RDP-red-tree~bush

Salicaceae (willow family)

Populus balsamifera L. ssp. *trichocarpa* (T. & G.) Brayshaw, syn. *P. trichocarpa* T. & G. ex Hook. (cottonwood)
(96) *mulsh, mulš*

*Populus tremuloides** (quaking aspen or trembling aspen)
(97) *darełdułdułp, darełdúldułp, dar-eł-√dúł-duł-p,* containers.stand-CONN-rustle-AUG.RDP-INC
(98) *dułdułp, √dúł-duł-p,* rustle-AUG.RDP-INC

Salix sp., probably *S. exigua* Nutt. (willow)
(99) *de'łełp, √dél'-ełp*

Salix sp. (willow)
(100) *q'ólsalqw, √q'ʷóls-alqʷ,* willow-tree[9]

Solanaceae (nightshade family)

Nicotiana attenuata Torr. *ex* Wats. (wild tobacco)
(101) *smi'lkhw, smil'xʷ*

Solanum tuberosum L. (potato)
(102) *paatąq, pa:táq,* possibly from Fr. *patate*

Valerianaceae (valerian family)

Valeriana edulis Nutt. *ex* T. & G.* (edible valerian)
(103) *mąsms, √más-məs,* ?-AUG.RDP
(104) *masąwi* (Spokane), *masáwi*

Terms not identified scientifically, or not identified in English

(105) *pichelusa**, *pičelúsa**
(106) *sk'waqhk'waqhełkwa'**, *s-?√k'ʷeɣ-k'ʷeɣ-ił-kʷe?,* NOM-claw-AUG.RDP-inside-water

(107) *taqhtaqhilp, teẋ-√teẋ-ilp*, AUG.RDP-?bitter-plant; 'black birch' (N2: 56, 254)

(108) *t'eptpielp, √t'ep-t'ep-t-elp*, ?animate.objects.stop-AUG.RDP-INH-plant

NOTES ON APPENDIX 1

[1] Laurence Nicodemus asserts that the meaning of *qoqo'li̱'t* 'black pine' could be 'easily burned'. This suggests that the linguistic root is *q^{w}el* 'light fire' and the analysis is *q^{w}e-√q^{w}e?l-i?t* (AUG.RDP-light.fire$_{INC.GLOT}$-source). However, this contemporary analysis in Snchítsu'umshtsn may not hold true for cognate forms in other languages.

[2] In Stl'atl'imx, a reduplicated form of the term refers to second growth or young Douglas-fir.

[3] Johnson (1975) has *leq'* 'search for'. Nicodemus (1975a) has *leq'* 'bury' and *laq'* 'pare, peel' and 'to search'. The peeling sense seems more likely.

[4] While the second *p* of the community citation form *p'e̱khwp'ukhw* is here written with a glottal, it should be noted that Reichard and Nicodemus wrote the word without glottalization and one of Palmer's consultants pronounced it without audible glottalization, perhaps as an effect of the reduction in stress on the second syllable.

[5] There are several likely candidates for linguistic root for this term.

[6] The *-elp* ending is unusual, as *-alp* is more common in this context and Okanagan has the ɬ, but it has been rechecked with Nicodemus. See the reanalysis at the end of this entry.

[7] The identification is from Teit (1930:90), who has *(sEn)paqpaqa'xEn* "*Vaccinium* sp. (white huckleberry)." There is a named variety of saskatoon (serviceberry) which is cognate to this in both Stl'atl'imx and Nlaka'pamux, and the main variety of saskatoon in Secwepmx is named *peqpeq?uy*. However, Teit may have been correct in his identification of the plant as a *Vaccinium*, as there is a Stl'atl'imx form *p'úp'oq^{w}* 'high-bush blueberry'. Furthermore, there is a fungus or virus that seems to attack huckleberries and render them white, small and inedible. In the coast Salish areas, there is *Vaccinium ovalifolium* called "mouldy blueberry" in Nuxalkmc (Bella Coola), a blueberry with a whitish waxy coating or bloom on the berry.

[8] In Nlaka'pamux (Thompson) one of the names for *Gaillardia aristata* Pursh is *n̓kwtl'=úsm-s e s/c'wên'* lit. 'eyes of a salmon', said to be borrowed from Nsilxtsin (Okanagan-Colville) (Turner et al. 1990:181). There are other variants of this.

[9] Turner et al. (1998:405) has Secwepemc *q'^{w}ɔlsélp* "from *q'^{w}él-* 'cooked, ripe', possibly from the color of the bark."