GENERAL PLANT CATEGORIES IN THOMPSON AND LILLOOET, TWO INTERIOR SALISH LANGUAGES OF BRITISH COLUMBIA

NANCY J. TURNER Research Associate Botany Unit British Columbia Provincial Museum Victoria, B.C. Canada V8V 1X4 and Adjunct Professor Department of Botany University of British Columbia Vancouver, B.C. Canada V6T 2B1

ABSTRACT.—Lillooet and Thompson, two closely related Salish languages of northwestem North America, are similar, though not identical, in their perception and encoding of major plant classes. Both lack free-standing terms for the "plant" kingdom, but have suffixes which denote "plantness" when incorporated in generic-level plant names. Both recognize nomenclaturally categories of "trees," "grasses," "low, herbaceous, broad-leaved plants," "mosses," "mushrooms" and "berries." Thompson also has a named category of "bushes," whereas this class is only incipient in Lillooet. In both languages there is an incipient, but unnamed class of "edible roots [and underground parts]."

The historical derivation of the category names is discussed in relation to suggested encoding patterns of Berlin (1972) and Brown [1984]. A number of the major categories are at least partially defined by utilitarian features. The categories are not necessarily mutually exclusive. Most of the major categories have many recognizably distinct members which are unnamed at the generic level. Lillooet and Thompson major plant classes seem fluid and ambiguous compared with the "life forms" of Berlin and Brown.

INTRODUCTION

Folk biological classification has been a major focus of research by ethnoscientists over the past two decades, stimulated largely by the pioneering investigations of Brent Berlin and his colleagues (cf. Berlin 1972; Berlin, Breedlove and Raven 1966, 1973, 1974). On the basis of their research in folk biotaxonomies they have identified five universal ethnobiological ranks arranged hierarchically and containing mutually exclusive taxa. The most general, all-inclusive category is the "unique beginner" (ie., "plant," in the case of folk plant taxonomies). Categories of "life form" rank are the next most inclusive. They are described as being "... invariably few in number, ranging from five to ten, and among them are included the majority of all named taxa of lesser rank ... Life form taxa are labeled by linguistic expressions which are analyzed lexically as *primary lexemes*... and may be illustrated by the classes named by words such as *tree, vine, bird, grass, mammal,* and so forth." (Berlin, Breedlove and Raven 1974:25-26).

Included within life form taxa are taxa of "generic" rank, and within some of these are contrast sets of "specific" taxa, which, in turn, may include "varietal" taxa. A sixth rank, comprised of "intermediate" taxa, is occasionally interposed between life form and generic taxa. However, these are said to be rare and not usually linguistically labeled (Berlin, Breedlove and Raven, 1974:26). The various taxonomic ranks, as perceived by

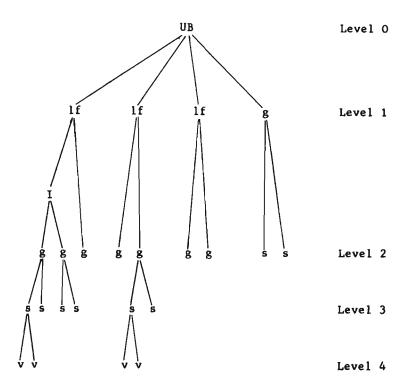


FIG. 1.—Schematic diagram showing hierarchical arrangement of folk biological categories as described by Berlin and his co-workers [after Berlin, Breedlove and Raven 1974:26]. [UB - Unique Beginner; lf - life form; I - Intermediate; g - generic; s - specific; v - varietal.]

Berlin and his colleagues, are shown schematically in Fig. 1. "Life-form" classes in folk biology have been further investigated by Cecil Brown and his co-workers (cf. Brown 1977; Witkowski, Brown and Chase 1981; Brown 1984; Brown 1986). From surveys of folk classification in 188 languages for plants and 144 languages for animals, Brown has postulated a number of cross-language uniformities in the linguistic encoding of life form taxa (Brown 1984).

Some problems with the "life forms" and other biological taxonomic categories as perceived by Berlin and Brown and their colleagues have been pointed out by Hunn (1982) and Randall and Hunn (1984). Hunn and Randall argue that neither Berlin nor Brown adequately accounts for the influence of cultural importance of organisms on folk biological classifications. Furthermore, their descriptions, they maintain, do not reflect the real complexity of folk taxonomies, even at a general level.

In this paper I will describe and compare the most inclusive plant classes—those at the level of Berlin's "life form" and "unique beginner" ranks—within the linguistic and cognitive systems of Lillooet and Thompson, language groups of the Interior division of the Salish language family. Additionally, I will discuss the characteristics of Lillooet and Thompson general plant categories in relation to the universal features postulated by Berlin and Brown and their co-workers, with particular attention to the criticisms of these schemes made by Hunn and Randall.

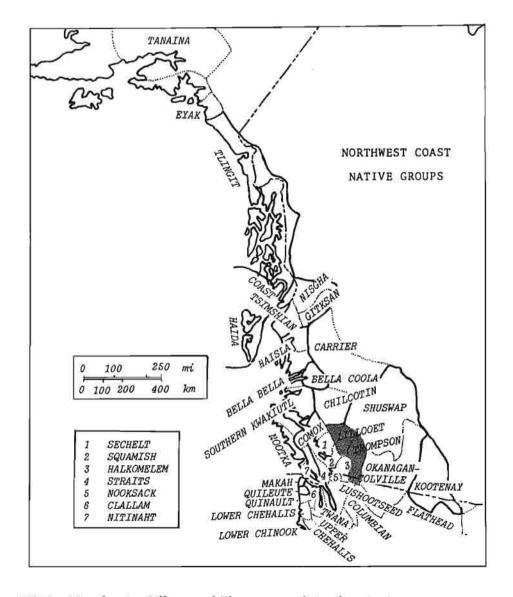


FIG. 2.-Map showing Lillooet and Thompson traditional territories.

This work is part of a broader study comparing many aspects of Lillooet and Thompson ethnobotany. These language groups are not only closely related linguistically, but also geographically, ecologically and culturally. Their geographical proximity is shown in Fig. 2. Their traditional territories extend over a broad and diverse area, encompassing the same range of biogeoclimatic zones. Hence, both groups have had access to the same, relatively diverse flora. Both languages are divided into "Upper" and "Lower" dialect regions, which correspond roughly with the ecological division between the hot, dry interior and the cooler, moister regions closer to the Pacific coast. Both groups are classed within the Plateau culture area, although both, especially their "Lower" divisions, exhibit influences of the adjacent Northwest Coast culture area. Both had traditional economies based on hunting, fishing and gathering. Except for native tobacco agriculture was not practiced until the advent of Europeans, although controlled burning for the maintenance of desirable habitats for certain food species was.

Data for this study were obtained through interviews with native speakers of Lillooet and Thompson conducted over a period of many years—since 1972 for Lillooet and 1973 for Thompson (see Appendix 1). A preliminary description of Lillooet folk plant taxa was included in Turner (1974). However, additional research and recent discussions of folk biological systems in the literature have contributed to an elaboration and refinement of the original descriptions of major plant categories in Lillooet in the present paper. Thompson folk plant classes were discussed in Turner *et al.* (1984).

Several linguists specializing in these native languages collaborated on this project, including Jan van Eijk, Randy Bouchard, Laurence C. Thompson, M. Terry Thompson and Steven Egesdal. Interviews were in English; virtually all the native elders speak English as well as their own language. However, plants were usually referred to by their native, rather than English, names, or simply by using growing or freshly picked specimens of various plants as samples to be discussed. General plant taxa were identified and inventoried by means of informal conversations about plants, and through discussions of applied terminology and more formal questions about the relationships and attributes of individual plant species and folk generic level taxa.¹

The Lillooet and Thompson communities, like other native communities in British Columbia, have become largely assimilated linguistically and culturally to the dominant Euro-american English-speaking population. Though many aspects of native culture remain, these have been significantly influenced by the "White" culture. Few members of the younger generations of native people are able to speak their traditional languages fluently, and even elders may not recall some of the more obscure or specialized vocabulary. Inevitably, cognitive systems have changed. Nevertheless, their underlying structure, as reflected in language, remains. Furthermore, the changes themselves, and the ways in which new items and concepts have been incorporated, are also a valid and productive subject for research. In the case of folk plant taxonomies, studying how existing folk taxa have been altered and new taxa developed with the influx of exotic plants and plant products can reveal insights into the evolution of folk classification systems.

THE "PLANT" CONCEPT IN LILLOOET AND THOMPSON

Typical of northwestern North American languages (cf. Turner 1974; Turner and Bell 1971, 1973; Turner, Bouchard and Kennedy 1981; Turner and Efrat 1982; Turner *et al.* 1984) and in accord with Berlin's general principles (Berlin 1972:78; Brown 1984:4) neither Lillooet nor Thompson has a free-standing term denoting any and all members of the plant kingdom. "Plant" is nevertheless a psychologically valid category in Lillooet and Thompson. Our native consultants showed no hesitancy in discussing plants as a discrete group, to the exclusion of animals and inanimate objects. One might argue that the "plant" concept was acquired through contact with English-speaking peoples. However, the existence of suffixes and descriptive term in these languages with semantic ranges encompassing a broad spectrum of "plants" suggests otherwise.²

In both languages, there is a suffix which may be variously translated as "plant," "bush" or "tree." In Lillooet the suffix is **-az**, alternating with **-tap** [var. **-tp**] or **-atp** in terms most likely borrowed from neighboring languages. This latter suffix is cognate with the Thompson suffix **-etp** and its variants. Examples of plant names containing these suffixes are shown in Table 1. In some instances, as with fruiting plants, the "plant" suffix is added to the name for the fruit or other culturally significant plant part to form the name for the whole plant [e.g. Lillooet **ġan** - black hawthorn³ fruit, **ġán-aż** — black

Plant name	English gloss	Corresponding species	
pún-ləp		Rocky Mountain juniper	
cikcəkt-aż		common juniper	
məlin-ləp		subalpine fir, grand fir	
ćk-aż	'pine-seed-plant'	whitebark pine	
q ^w lit-az (P)	? 'pitch-plant'	lodgepole pine	
Lomý-óź		western yew	
tə¥ ^W ?ac-àź/tə¥ ^W ?ac-áłp	'bow-plant'	western yew	
ləx-áż (F)		"cut-grass"	
níž-mž-až (P)		'cutting-plant'	
Xáq ^w am-aż		"timbergrass"	
síć-təp		vine maple	
káw-kw-aż		big sagebrush	
tág?-aż		salal	
pác?-aż	'digging-stick-plant'	oceanspray	

TABLE 1.—Examples of plant names in Lillooet and Thompson incorporating "plant" suffixes.

Lillooet*:

[•]Unless otherwise specified, names occur throughout the languages; in Lillooet, F denotes Fraser River dialect only, P, Pemberton dialect only.

Thompson:

Plant name	English gloss	Corresponding species
pəşke?-ətp	'hummingbird-plant'	Indian paintbrush, shrubby penstemon
məck ^w -elp	'blackcap-plant'	blackcap
s-ở ^w oở ^w ýep-étp	'strawberry-plant'	wild strawberry
ģ ^w uys-ētp	'silverberry-bark-plant'	silverberry
?ik-etp-étp	'kinnikinnick-plant- plant'	twinflower
scum-mn-elp	'sucking-substance- plant'	orange honeysuckle
ýətyeti?tń-étp	'cough/cold-plant'	pussytoes
spećn-etp	'twine-plant'	Indian hemp
q ^w n-étp		Indian hellebore

Plant name	English gloss	Corresponding species
q ^w i?t-é l p		lodgepole pine
pəpu?n-elp	'flatulating-plant'	pasture wormwood, rabbit brush
pún-tp		Rocky Mountain juniper, sometimes common juniper
ċq·átp	'sticky-plant'	Douglas-fir
x ^W ik ^W estn-élp	'scrubber-plant'	western hemlock
¥áq [₩] ·etp	_	pine grass

 TABLE 1.—Examples of plant names in Lillooet and Thompson incorporating ''plant''

 suffixes. (continued)

hawthorn bush; (s)psus = bitter cherry fruit, psus = az = bitter cherry tree; or, alter $nately s?<math>iwx^{W}$ —bitter cherry bark (when removed from tree for use in wrapping implements and basket decoration), ? $iwx^{W}-az = bitter cherry tree]$. In other cases, the suffix is applied to a term which indicates an application of the plant or some other significant association (e.g. Lillooet pac>-az = ceanspray; cf. paca> 'digging-stick'⁴]. In a few terms, the stems are unanalysable (e.g., Lillooet cátaw-az = red cedar, cáx-az = Sitka spruce; Thompson $q^{W}n \cdot etp$ — Indian hellebore). In Lillooet, about 50 percent of all plant names of generic rank include the "plant" suffix -az or the equivalent borrowed suffixes, 'hap/-adp (Turner, 1974:31). In Thompson, about 20 percent of the plant names incorporate the "plant" suffix -etp, either optionally or mandatorily. 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. The existence of a "plant" suffix is widespread in northwestern North American languages.⁵

When additional terminological data are considered, the reality of the "plant" category is reinforced. For example, there are numerous morphological terms for different parts of plants that are exclusive to the domain. These include words for "leaf," "root," "branch," "stem," "shoot" and "seed" in both Lillooet and Thompson (J. van Eijk, pers. comm. 1985; Turner *et al.* 1984). These terms are applied to plant species the names of which include the "plant" suffix, to those which do not, and to plants which are unnamed. Hence, the existence of a covert "plant" category is implied by the range of application of anatomical terminology. Furthermore, as discussed later, many of the generic level plant names in Thompson which do not contain the "plant" suffix incorporate terms for major plant categories, especially those for "low herbaceous, broad-leaved plants" and "flowers." This reinforces at a basic level the notion of these plants belonging to larger groupings and ultimately, by virtue of overlapping major classes, to an all-inclusive category, "plant."

Are fungi and non-vascular plants such as mosses and lichens considered as "plants" in the traditional Lillooet and Thompson worldview? Contemporary native consultants

Thompson:

have no difficulty in categorizing them as such, but in neither language is there any common linguistic element, such as the "plant" suffix, linking these organisms to other plants. Because they grow and do not move around, their "plantness" may have been perceived even in aboriginal times.

"LIFE FORM" LEVEL PLANT CATEGORIES

Below the "plant" class, the most inclusive labeled plant categories for Lillooet and Thompson are several roughly equivalent to the "life forms" of Berlin and Brown. These are listed in Tables 2 and 3. As might be expected, the names for and ranges of the major plant categories of Lillooet and Thompson are quite similar.

In Lillooet, the major named categories include: "trees [especially coniferous trees]," "grasses and grass-like plants" and/or "hay," "low, herbaceous broad-leaved plants of little cultural significance," "flowers," "berries/fruits," "mosses and moss-like plants" and "mushrooms and fungi." Additionally, "bushes" are generally recognized as a discrete category, but are not really named as such. Plants with culturally significant [ie., edible] roots and underground parts are also conceptually discrete, even though there is no inclusive Lillooet term for these [Turner 1974:41].

Lillooet name	Approx. English equivalent	Examples of incl. taxa
s-γáp 'that which is upright')	"tree"	Douglas-fir; bitter cherry; cottonwood; ponderosa pine
(s) låqəm /s-čápəż	"hay"/"grass"	bunchgrass; timothy; giant wild rye
s-wa?p-úlinəxW {'ground-growth/hair')	"low, herbaceous, broad- leaved plants of low cultural importance"	millein; plantains; lamb's quarters; twinflower
s-ṗáġəm (cf. ṗaġ 'white/light-coloured')	"flowers"	self-heal; wild rose; Penstemon serrulatus
s-ġwəl 'ripe/cooked' ; - usa ? 'round/oval object']	"berries/fruits"	saskatoon; salal; black huckleberry; thimbleberry
på?səm	"mosses and moss-like plants"	Rhytideadelphus triquetrus; Dicranum scoparium; Cladina spp.; Selaginella wallacei
s-ģəṁs (P);	"mushrooms and fungi"	pine mushroom; "cotton- wood mushroom"; shaggy mane; puffballs
unnamed	"edible roots and underground parts"	tiger lily; chocolate lily; water parsnip; wild onions

TABLE 2.—General plant classes in Lillooet.

Thompson name	Approx. English equivalent	Examples of incl. taxa	
s-yép	"large trees"	Douglas-fir; red cedar; pines; cottonwood	
müyx	"tall bushes and small deciduous trees"	mountain alder; Rocky Mountain maple; shrubby willows; oceanspray	
s-yîqm	"grasses/hay and grass- like plants"	bunchgrass; reed canary grass; giant wild rye; "timbergrass"	
<i>s-tuyt-ûyıhx^w</i> ('ground-growth/hair')	"low, herbaceous, broad- leaved plants of low cultural importance"	stonecrops; plantains; vetch; lamb's quarters	
s-ṗāģm	"flowers"	calypso; buttercup; amica garden flowers	
s-ģwīyt/ s-ģwit-éłp/ - ūse? ('round-object')	"berries/fruits"	huckleberries; saskatoon; soapberry; strawberry	
<i>q</i> [₩] zêm	"mosses and moss-like plants"	Hylocomium splendens; Eurhynchium oreganum; Lobaria spp.; Lycopodium clavatum	
ģámes [Lower]/ məxqî ? [Nicola]	"mushrooms and fungi"	pine mushroom; "cotton- wood mushroom"; shaggy mane; oyster mushroom	
(ἀ̞əċ)ἀɨəċ-usnīni ('woven-as-it-grows')	"large vines"	white clematis; orange honeysuckle (sometimes); grape; English ivy	
unnamed	"edible roots and underground parts"	wild onions; yellow avalanche lily; spring beauty; bitterroot; balsam- root	

TABLE 3.—General plant classes in Thompson.

In Thompson, the major named categories are: "large trees (especially coniferous trees)," "tall bushes and small deciduous trees," "grasses and grass-like plants," "low, herbaceous broad-leaved plants of little cultural significance," "flowers," "berries/fruits," "mosses and moss-like plants" and "mushrooms and fungi." "Vines" as a category in Thompson apparently originally included only two or three species, but has been extended. A category, "roots and underground parts," though unnamed, is also recognized. Each of these categories will be discussed in some detail, both in respect to its counterparts in related languages and to its corresponding "universal life form" status.

In both Lillooet and Thompson, the "tree" category comes closest to exhibiting the features of a life form (cf. Brown 1982:5-6). It is subordinate to the unique beginner and is labeled by a "primary lexeme" (Berlin, Breedlove and Raven 1973:215). This lexeme is complex, however, since it is analyzable, expicitly referring to the standing form of the class members (lit. 'that-which-is-put-upright') (J. van Eijk, pers. comm., 1985; Thompson and Thompson, in press; see also Table 4). The "tree" class in each language is polytypic, including a substantial number of "generic" taxa which are mutually exclusive and mostly labeled by primary lexemes, many of which are analyzable. It is defined, apparently, by a small set of morphological features (ie., large, upright, woody), and can be said to be "general purpose" (Brown 1982:14). However, the "tree" category in Thompson and Lillooet did not follow the most common development pattern as described by Berlin (1972:71).

One might suppose, in looking at Lillooet in isolation, that the "tree" category developed through expansion of reference, since, in Lillooet, Douglas-fir (Fig. 3), a highly salient species, is called $s \gamma ap-2il$ 'real/original tree.' One could envision the development of the "life form" name from a generic based on the premises of Berlin (1972:71) and Brown (1984:60).

However, when terms for Douglas-fir in neighboring Interior Salish languages are considered, the development of the more general life form name through expansion of reference in Lillooet seems unlikely. The Thompson, Shuswap and Okanagan-Colville terms for "tree" are related, and in all three cases, as well as in Columbian, where the 'tree' term is unrelated, their names for Douglas-fir are different and unrelated to their terms for "tree" (see Table 4). In view of this, as well as the fact that the term for "tree" in both Lillooet and Thompson is analyzable and implies an upright habit (as it does in Sahaptin, Flathead and Columbian, among other languages—Randall and Hunn 1984:341, Hart 1974:36₇ D. Kinkade, pers. comm., 1986), it seems more probable that the Lillooet term for Douglas-fir was derived from the "tree" term, through restriction of reference.⁶ This would imply that the "life form" term "tree" is chronologically older

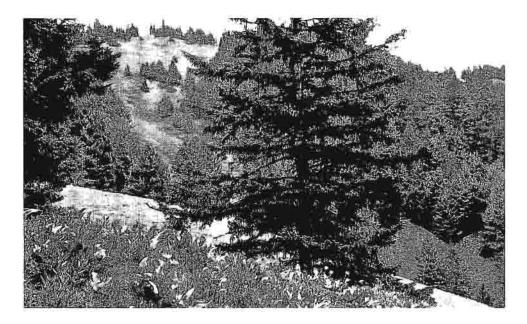


FIG. 3.-Douglas-fir, the "type" for the "tree" category in Lillooet.

Language	"Tree"	Douglas-fir	Reference
Lillooet	<i>s-γάp</i> ('that which is upright')**	<i>s-γap-?úl</i> ('real/original tree')	J. van Eijk, pers. comm. 1985
Thompson	<i>s-γέp</i> ('upright/pole')	č<i>ą-ātp</i> ('sticky-plant')	Turner et al. 1984
Shuswap	tsegáp (c əγə́p)	tsk'alhp (cģ-ē lp)	Palmer 1975:44, 52
Okanagan- Colville	tsegîp/tsiyîp (caγîp/ciyîp)	tsk'ilhp (cġ-ilp)	Turner, Bouchard and Kennedy 1981: 156

TABLE 4.—"Tree" terms and names for Douglas-fir in British Columbia Interior Salish Languages.*

*Additionally, D. Kinkade (pers. comm., 1986) provides the following information for Columbian, an Interior Salish language of Washington. The singular term for tree is **2ac-part** ('single upright object'), the plural term is unrelated: **2as-čālčal** ('plural upright objects'). The latter also sometimes means 'brush, bushes.' The Columbian term for Douglas-fir is **cd-atp**, cognate with Thompson, Shuswap and Okanagan-Colville.

**Cf. root $\gamma i p$ 'to grow,' $\gamma a p$ 'to stand up,'; hence *s*- $\gamma a p$ means 'the grower,' or 'the standing-up one' (J. van Eijk, pers. comm. 1986).

than the "generic" term "Douglas-fir" in the Lillooet language. However, that does not mean that the category "tree" is older than the generic-level category "Douglas-fir." Rather, it is likely that Douglas-fir had an earlier name in Lillooet, perhaps cognate with the other Interior Salish terms, and the present name, 'real/original tree,' replaced the earlier name.

There is an additional piece of evidence to support the second supposition. Lillooet has a term, *ċqâqlap*, which is a reduplicated form of *ċq̂-afp*, a form cognate to the Thompson name for Douglas-fir. While *ċq̂-afp* itself does not occur in the Lillooet vocabulary, the presence of its diminutive form, meaning "young tree" and in particular "young Douglas-fir,"⁷ implies the former existence of the more basic term (J. van Eijk, pers. comm. 1986). Van Eijk postulates that the term *ċq̂-afp* may have fallen into disuse in Lillooet as a result of a word taboo, to be supplanted by the "real tree" epithet. Douglas-fir plays an important role in Lillooet and Thompson ritual and religious traditions (Turner 1986).

Incidentally, the Lillooet and Thompson application of "tree" has some ambiguity. Most of the core species in the taxon, those that would be exemplary, are large coniferous species, but on closer questioning most native speakers would include black cottonwood, which grows throughout Lillooet and Thompson territory, and red alder, trembling aspen and broad-leaved maple, where these occur. Marginal species would be Rocky Mountain maple and mountain alder, which might also be categorized as large bushes.

The "bushes and small deciduous trees" category in Thompson is perceptually more distinct than the corresponding Lillooet category. In the former it is named (*múyx*), whereas in the latter it is only implied by application of the cognate term *múlx* ("stick")

[also applied to "trees"], and its reduplicated plural forms, **mol-múlx**, or **mol-mamĺax**, ["bushes/woods/underbrush"] to dense thickets of any type of bushes. The Thompson plural form, **mi-múyx**, also pertains to "woods/bushy places," but the Thompson **múyx**, unlike Lillooet **múlx**, seems to be used as a class name and is actually incorporated into the generic-level names for some shrubs. It is possible, however, that its meaning has simply tended to conform with "bush" within historical times, as a form of semantic convergence with English.⁸ In a similar vein, there also may well be a tendency in Lillooet for the term **múlx** "stick" to assume the semantic role of a class name for "bush." Future speakers of Lillooet, if the language persists, may use it as such.

Like the "tree" category, the Thompson muyx category poses an interesting problem in the origin and evolution of general categories. In the Okanagan-Colville and Shuswap languages, the cognate terms, mulx and mulux (or mulx) respectively (Turner, Bouchard and Kennedy 1981:134; Palmer 1975:68; Kuipers 1974:150), are generic names for black cottonwood. The term **múlx** is also used for cottonwood by the Nicola Valley Thompson, having been borrowed from Okanagan-Colville (Mabel Joe, pers. comm., 1984). In a number of southwestern American languages, the name for "cottonwood" is polysemous with the name for "tree" (cf. Trager 1939), but in Interior Salish, the relationship is more complicated because it transcends the boundaries of related but distinct languages, as well as the boundaries of two different major taxa, "tree" and "bush." Perhaps this situation reflects an original perceptual dichotomy between "evergreen woody plants" and 'broad-leaved woody plants," rather than between "tree" and "bush." Expansion of reference—from "cottonwood" to "bush"—may well have occurred but if so, this semantic shift must have taken place in proto-Salish, while these languages were diverging. It seems equally plausible that the names for black cottonwood in Okanagen-Colville and Shuswap developed through restriction of reference from a proto-Salish term for "wood/stick" in the same manner as the Lillooet name for Douglas-fir must have been derived from the more general term of "tree." Brown (1984:60) contends that in most languages the life-form name for "tree" derived historically from a term for "wood" or "firewood", which would have been more salient than "tree" in early cultures. In this case, "stick" may have had higher salience than "cottonwood" in a proto-Salish language, and the latter term have been derived from the former. Such a conjecture would be difficult to prove.

The "grasses and grass-like plants" categories in Lillooet and Thompson, like the "bush" classes, are subtly different, though roughly equivalent. They, too, seem to be diverging semantically. Most Lillooet speakers of the Fraser River dialect clearly distinguish *s-laqam* "hay" from *s-capai* "grass" [J. van Eijk, pers. comm., 1985).⁹ (In Fraser River Lillooet, *laqm-am* means 'to make hay.') However, in the Pemberton Lillooet dialect, though *s-laqam* is glossed primarily as "hay," it is used for "any grass/grass-like plant" since no other term for "grass" is known. Still, *s-laqam* is now exemplified by introduced hay crop species such as timothy and red-top, as viewed by at least one Pemberton speaker (A. Peters, pers. comm., 1984]. In Thompson, the cognate term *syiq-m* applies to "grass" or "hay" interchangeably.¹⁰

Bluebunch wheat grass ("bunchgrass"), a species of high salience in the dry Interior of British Columbia, is usually considered the prototype for "hay" and "grass/hay" respectively in Fraser River Lillooet and Thompson (Fig. 4). Traditionally it is known as excellent fodder for deer, and in historic times, has been valued as a hay crop and grazing species for horses and cattle (Steedman 1930:515; Turner, Bouchard and Kennedy 1981:53]. It has been called *s-laqam-vúl* ('real/typical hay') in Fraser River Lillooet, but younger speakers of the language today (eg., Desmond Peters, pers. comm., 1985) apply this term to alfalfa and the sweet-clovers, which are not grass-like at all; both are in the legume family. In Thompson, the cognate form *s-yíqm>úy* ('real/typical grass/hay') also refers to bluebunch wheat grass. This species does not occur in the coastward parts

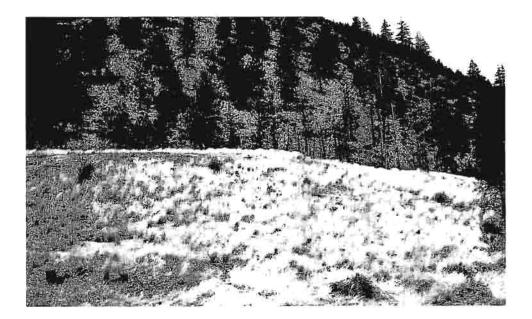


FIG. 4.—Bluebunch wheat grass, or "bunchgrass," the original "type" for "hay" and "grass/hay" in the interior dialects of Lillooet and Thompson respectively. Today its role is largely supplanted by sweet-clovers, alfalfa and hay crop grasses.

of the Lillooet and Thompson territories and was not known to the Pemberton Lillooet people.

"Bunchgrass" is also known as 'real hay' to some Shuswap speakers (Deadman's Creek) (Kuipers 1974:166), and in Okanagan-Colville it has two names, one cognate with Shuswap "hay/grass," and the other polysemous with the general Okanagan-Colville term for "grass, hay or grass-like plant," (see later discussion on "low . . . broad-leaved plants . . . ") (Turner, Bouchard and Kennedy 1981:52-53). The various names for "grass," "hay," and "bluebunch wheat grass" in the four British Columbia Interior Salish languages are shown in Table 5.

What is the origin of the general class names for "hay" in Lillooet and "grass/hay" in Thompson? Have they developed in the manner proposed by Berlin [1972:71] as a common method for derivation of general taxon names, through expansion of reference from the "generic" name of a highly salient species [ie., "bluebunch wheat grass"]? Or, conversely, did they exist prior to the name for the generic "type"? In this case, I would suggest the former developmental sequence, based on the existence of the name 'real/typical grass/hay' for bluebunch wheat grass in three out of four of the British Columbia Interior Salish languages, and on the specific application of the cognate term for Shuswap 'grass/hay' to bluebunch wheat grass in the fourth language, Okanagan-Colville. A tentative sequence of encoding is proposed in Fig. 5.

In Fraser River Lillooet, both the "hay" and "grass" categories are largely "empty," since each includes only a very few members named at the generic level. Hence, neither would qualify as a *bona fide* life form according to the criteria of Berlin and Brown. In Thompson, there are several (approximately ten) named terminal taxa incorporated in "grass/hay," hence it qualifies as a true life form.

Language	"Grass"/"Hay"	Bluebunch wheat grass	Reference
Lillooet	"hay" - s-láqəm "grass" <i>s-</i> c əpə ż	s-ləqəm->úl (F) ('real hay')	J. van Eijk, pers. comm. 1985
Thompson	''grass/hay'' - <i>s-yiqm</i>	s-yiqm 7úy	Turner et al. 1984
Shuswap	"hay/grass" - s-łyê?; or -ésłye (suffix)	s-tye>-ú>y (DC)	Kuipers 1974:63, 166
Okanagan- Colville	"grass/hay" <i>swupúla7xw</i> ('ground-growth/ hair')	sť iyi7; or sometimes swupúla7xw	Turner, Bouchard and Kennedy 1981: 52

TABLE 5.—"Grass" and "hay" terms and names for bunchgrass in British Columbia Interior Salish Languages.*

*F = Fraser River Lillooet dialect; DC = Deadman's Creek Shuswap dialect.

The category, "low, herbaceous, broad-leaved plants of little cultural importance," is more or less equivalent in Lillooet and Thompson, although in Lillooet the term **s-wa>p-úlmex^W** is used only in a general way, while in Thompson the corresponding term, **stuyt-úyinx^W**, is often incorporated in the names for particular kinds of plants (see Table 6 for examples).

In each language, this category appears to be a residual taxon, encompassing a wide variety of relatively short, non-woody, leafy species of low cultural significance. It is tempting to equate this category with the English folk taxon, "weed," as did the early ethnographer James Teit, who in his unpublished field notes on Thompson (1896-1918), recorded under lamb's quarters: "stuwitu'imax . . . " or "stuwitu'imax a sama" ['whiteman's stuyt— $\hat{u}y \hat{m} x^{W}$]... weeds introduced by whites with no particular name or use especially annuals . . . " Contemporary native elders also generally translate $s-wa^2p-\hat{u}lmax^W$ (Lillooet) and $stuyt-\hat{u}ymx^W$ (Thompson) as "weed." Indeed, one Lillooet speaker defined the term $s-wa^2p-\hat{u}lmax^W$ as "... just any weed in a garden ... any type of mixed plants, or low plants, it's just like [that] speargrass¹¹ ... whatever comes in the garden." (Desmond Peters, pers. comm., 1985). However, the term did not, at least originally, have the same negative connotation that "weed" has to many non-Indians, 12or that the GRERB ["grass-plus-herb"] category has in some other languages where its name derives from "rotten," "litter," "garbage" or "filth" [Brown 1984:63]. Here, it is more a term of convenience, defined linguistically by physiognomic characteristics (ie., 'ground-growth') and applied as a sort of "catch-all" mostly for plants not important enough to have special generic-level names.

In each language, but especially in Thompson, the category encompasses many indigenous plants; originally, of course, it would have applied only to indigenous species. Teit's application of the modifer "whiteman's" to the category is indicative of a recognition in Thompson of both native and introduced **stuyt-úymx^W**. With the advent of gardening, farming and ranching among the Lillooet and Thompson, coupled with a reduction

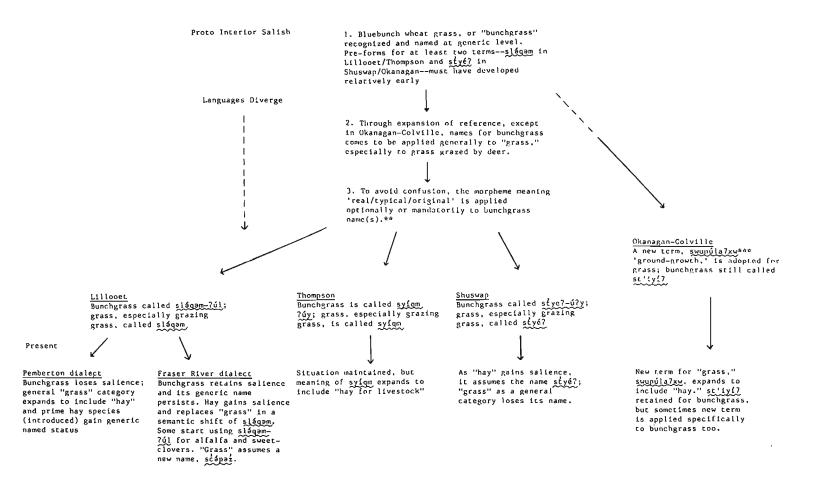


FIG. 5.-Proposed sequence of encoding of the Lillooet and Thompson general terms for "grass" and/or "hay."

NOTES (For Fig. 5)

*This is only one suggested series of derivations; more strenuous linguistic analyses would be required before this could be considered anything but very tentative.

**J. van Eijk (pers. comm. 1986) notes that "the Lillooet form of this morpheme, -? $\hat{u}l$, is the original one, whereas Thompson (which generally shifted Proto-Salish *l* to *y*| shows a later development. Shuswap, which like Lillooet generally retained Proto-Salish *l*, has unexpectedly -? $\hat{u}y$. The Shuswap form is thus possibly a borrowing from Thompson. The problem of development of plant taxonomies thus interesects with the problem of phonological developments and borrowing. It is also difficult to say whether in Thompson the suffix -? $\hat{u}y$ was added to *s*-*l* $\hat{a}qam$ [the ancestor of *syiqm*] and that the entire form *s*-*l*aqam-? $\hat{u}l$ shifted to *syiqm*-? $\hat{u}y$. . . or whether -? $\hat{u}y$ was added to bunchgrass' after this form had already changed to *syiqm*."

***D. Kinkade [pers. comm. 1986] notes that in Columbian Interior Salish, the related form, **swpūlaxw**, also pertains to "grass," and is generally glossed 'short grass,' although one speaker said it was particularly 'bunchgrass.' It has also been glossed as 'wild hay.' The Columbian term **stiya**? refers to 'hay, tall grass.'

of wilderness activities such as hunting and gathering, introduced "weeds" have certainly gained in salience and wild 'ground-growth' became less salient, so that there has been a tendency for the class to conform with our "weed" class. Even today, though, the conformity is not exact, at least among the more traditionally minded native speakers. Annie York, a major Thompson consultant, for example, refers to **stuyt-úyńx**^W very often in her discussions of low, herbaceous plants. She sometimes applies descriptive names such as **?es-walwiwl tak stuyt-úyńx**^W ['having-little-fringe ground-growth'—for parsley fern] to such plants. She even incorporates the term in names for plants which are useful medicines, such as two varieties of rattlesnake plantain [e.g. **?es-n-calcl-ilkn (tak stuytúyńx**^W)</sup> 'little-humpbacked [ground-growth']—for a wide-leaved variety].¹³

It is notable that in Okanagan-Colville and Flathead, the equivalent "ground-growth" terms have assumed the semantic role of "grasses" (cf. Okanagan-Colville "swupûla7xw" (swupûla?x^W) 'ground-hair/growth' for "grass, general" and Flathead supû?lex^W 'hair on the earth' for "grass"—Turner, Bouchard and Kennedy 1981:52; Hart 1974:34]. In the latter language, however, a "weed" category exists which was derived from the "grass" category: *ces.upú?lex^W* 'bad hair on the earth' [Hart 1974:38]. In Shuswap, the "weed" connotation for the equivalent term, "swupúlexw" [swupúlax^W], is retained (Palmer 1975:44].

The "flowers" category in each language is similar to the "ground-growth" category. It is somewhat of a "catch-all," generally applying to herbaceous species with conspicuous blossoms. It seems more or less equivalent to the English folk category "wild flowers," but with garden flowers also being included at the present time. If plants in the "flower" category are named more specifically, it is usually by some descriptive term (e.g., Thompson 'blue flower' for wild blue violet; 'creek flower' for rein orchid). The only "wild flower" in either language which has its own primary lexemic name is wild rose, called (s-)qəlq (bush — s-qəlq-àż) in Lillooet, but this term also applies to wild rose hips, and some apply it exclusively to the latter, calling rose flowers páqəm s-qəlq-àż (lit. 'flowers of the rose bush') (Edith O'Donaghey, pers. comm., 1985).

The "flowers" category actually overlaps somewhat with the "ground-growth" category, as can be seen by the optional application of the general terms in the names of some plants in Thompson. For example, in several instances, Annie York used **stuyt-uymx**^W and **s-paqm** interchangeably in naming some herbaceous plants that also had conspicuous flowers. Not knowing a "real" name for wild bleeding-heart, for instance, she applied a translation borrowing from the English name. She used both **s-x^Wak**^W

Thompson Term	English gloss	Species referred to		
?es-ləqlāq tək stuyt-ûyṁx [₩]	'clumped-here-and-there ground-growth'			
?esnćəİćİ−İİkn (tək stuyt-úymx ^w	'little-humpbacked ground-growth'	rattlesnake plantain (wide- leaved variety)		
Xəx₩Xx₩əp pel- stuyt-üymx ^w	'paralysed-person's ground-growth'	Canada goldenrod		
(?e)s-pəspə́s pe l s-yiqm	'swamp grass'	Carex sp.		
qəpqép tək spáqm	'soft flower'	western anemone		
scwewx ^w pet spáąm	'creek flower'	rein orchid		
ģəpģəpk^wlé pet múyx (OR ģəpģəpk^wleh-étp)	' ''click-click'' bush' (OR 'plant')	highbush cranberry		
x?-úymx^w peł mūyx (a descriptive name)	'upland bush'	white-flowered rhododen- dron		

TABLE 6.—Some examples of generic-level names incorporating general class terms in Thompson (after Turner et al. 1984).

 $x^{W\hat{a}k^{W}} k^{W}uk^{W} tək stuyt-<math>\hat{u}y\dot{m}x^{W}$ (lit. 'heart ground-growth') and $s \cdot x^{W}ak^{W}x^{W}\hat{a}k^{W}$ $k^{W}uk^{W} tək spaam (lit. 'heart flower'). In one case, for an alternate name for buttercup, she applied these two general terms simultaneously: <math>2es \cdot k^{W}alk^{W}l\hat{o}^{2}$ tək stuyt- $\hat{u}y\dot{m}x^{W}$ $e s \cdot p\hat{a}\dot{q}ms$ (lit. 'little-yellow ground-growth flower'). This overlapping does not seem to be a case of ambiguity about category boundaries, but simply an acceptance of cross referencing of taxa, depending on which feature of a plant is being stressed. I found a similar overlapping of general categories in Haida (an unrelated language), where plants were referable to either a "leaf/medicine" category or a "flowers" category depending on context, and on which aspect of a plant was being stressed (Turner 1974:36).

The "flowers" category, like the "ground-growth" class in each language, includes as primary members plants which were little used for food or as a source of materials. This is not to say that the blossoms of important food species such as spring beauty, yellow avalanche lily or chocolate lily were not called "flowers," but perceptually, they are not within the core of species which comprise this class. They are not normally given as examples of "flowers." There is, at least in Thompson, a utilitarian aspect of many, but not all, members of the "flowers" category that is apparent only on close scrutiny. Various types of flowers were used, more than members of any other class of plants, as charms, to bring luck in love, gambling and the acquisition of wealth. Flowering species such as red columbine, calypso, blue harebell, delphinium, large-leaved avens, bog orchid, alpine bitterroot, red monkeyflower, forget-me-not, night-flowering catchfly, campion and starflower were used for little else, but all were used as charms of some sort (Turner *et al.* 1984: Table 7).

Brown (1984:10) argues that English "flower" is a special-purpose class, "... since its membership is not based on several clustering morphological features, but rather

		I	ife fo	rm Ci	riteria	•		Qualifies
General plant classes**	1	2	3	3A	4	5	6	
Lillooet:								
"tree"	Х	х	х	_	х	х	х	YES
"hay"	Х	х	_	E	х	_	_	NO
"grass"	Х	х	_	E	Х	Х	—	NO
"low plants"	Х	х	_	Е	х	_	_	NO
"flowers"	Х	х	_	Е	${\bf X}$	_	_	NO
"berries/fruits"	Х	х	х	_	(\mathbf{X})	_	_	NO
"mosses"	х	х	_	E	х	Х	Х	NO
"mushrooms and fungi"	?X	х	х	—	х	х	Х	YES
"edible roots"	х	_	Х	_	(\mathbf{X})	—	_	NO
Thompson:								
"large trees"	Х	х	х	_	х	х	Х	YES
"tall bushes"	Х	х	х	_	х	х	Х	YES
"grasses/hay"	Х	х	х	_	Х	Х	Х	YES
"low plants"	Х	х	х	_	Х	_	_	YES
"flowers"	Х	х	х	_	(X)	_	_	NO
"berries/fruits"	Х	х	х	_	[X]	_	_	NO
"mosses"	Х	х	_	E	х	Х	Х	NO
"mushrooms and fungi"	?X	х	х	_	х	х	х	YES
"large vines"	Х	Х	—	—	X	Х	Х	YES (recent)
"edible roots"	Х	_	X	-	(X)	_	_	NO

TABLE 7.—Correspondence of Lillooet and Thompson major plant taxa described in this study with the criteria for life form recognition as defined by Berlin, Breedlove and Raven (1973) and Brown (1984).

*Criteria for life form recognition are as follows (after Berlin, Breedlove and Raven, 1973:215) and Brown (1984:18-21): 1. occur at rank Level 1, immediately below unique beginner; 2. are labelled by primary lexemes; 3. are polytypic, including many [ten or more] labelled taxa (usually labelled by primary lexemes, although Brown cites examples where all included classes are labeled by secondary, or composite, lexemes); 3A. are "Empty" (E), including few [under ten] or no named members but many unlabelled taxa. (Such categories are classified as "not full-fledged" life forms, but "incipient" life forms by Brown 1984:21); 4. reflect natural morphological discontinuities; 5. are general pur-

pose, not special purpose (ie., are not defined largely by a single utilitarian attribute); 6. are mutually exclusive (although Brown cites instances where dual life form membership is evident). "X" indicates conformity with life form features. (X) indicates partial conformity. "—" indicates non-conformity. In **3A**, evaluation as an "Empty" category (E) is contrary to the characteristics of a true life form; in this case, a negative assessment (—) implies conformity with life form characteristics.

**See Tables 2 and 3 for native designations and more detailed descriptions of these classes.

simply on the presence of prominent or ornamental blossoms." According to his view, the Lillooet and Thompson "flower" classes would not qualify as "life forms" because they would be attributed the same special-purpose status. However, Randall and Hunn (1984:341) maintain that in both English and Sahaptin "having" a flower is not the only attribute of plants that are "flowers." Most are herbaceous with a showy inflorescence. Part of the confusion is that there is a polysemy between the plant "part" and the plant "class." The distinction is evident in the words of one of my relatives, describing a particular plant to my daughter: "It *has* a flower, but it's *not* a flower." Thus, Randall and Hunn suggest that "flower" should qualify as a life form as much as "grass," "tree" or "vine."

The "berries/fruits" category, as a special purpose utilitarian class, does not fit into Berlin's or Brown's concept of a "life form" at all, but it does exist as a named, psychologically valid general plant class in the various northwestern North American native languages I have studied (cf. Turner 1974:36, 39, 41, 79; Turner and Efrat 1982:21; Turner *et al.* 1984:48). Randall and Hunn (1984:340) have also recognized "edible fruit" as a major inclusive class in Sahaptin. In both Lillooet and Thompson, not only is it recognized with a general class name but additionally, a suffix, *-ūse?* (lit. 'round-object' in Thompson and *-usa?* (lit. 'round-object'; also 'fruit/potato/money'; cf. also *-us* 'face/eye') in Lillooet, is applied in the names of many different types of berries, e.g.:

Lillooet

cac?-úsa? (cf. s-cicâ? 'crow') — blackcap
swəłk^Wa?ú?sa? — saskatoon, red variety
q^W?ž-q^Wíq^Wž-usa? 'black (redupl.) fruit' — northern black currant
Thompson
cəq^W-ciq^W-úse? 'red-berries' — red huckleberry

sax^W-sux^W-úse? 'grizzly-bear-berry' — black twinberry scól-se? 'sour/tart-berry' — Oregon-grape si?h-ús(e?) 'good-fruit' — saskatoon, ''good'' variety.

In the Fraser River dialect of Lillooet, **?ūsa?** is applied specifically to black huckleberry (Fig. 6), although in Pemberton Lillooet, a different term, **mexāž**, is used for this species. In Thompson, black huckleberries, though not called "berries" as they are in Fraser River Lillooet, were nevertheless considered "special." Annie York called them "the head of all the fruits . . . an official fruit" and said that if one was given black huckleberries as a gift, he was expected to give a gift in return. In Okanagan-Colville, at least one speaker, Selina Timoyakin, called them the "chief" of the fruits. In another Salish language, Bella Coola, as with Fraser River Lillooet, their name is polysemous with the general name for fruit (Turner 1974:79, 37). This is true also in Sahaptin (E. Hunn, pers. comm. 1986). The berries seem to have the equivalent status among native fruits that bluebunch wheat grass does among grasses in the Interior Salish area.

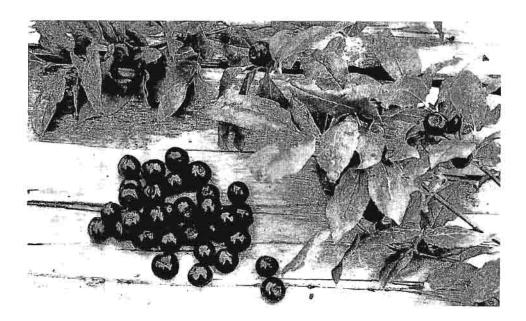


FIG. 6.—Black huckleberry, called simply **?usa?** 'berry/round object' in Fraser River Lillooet.

Obviously, the "berries/fruits" category is an overlapping one, especially with the "tall bushes . . . " taxon. It depends upon context, for example, whether one refers to saskatoon as a "bush" or as a "fruit." The majority of "fruits" (ie., "fruit-bearing plants") are, in fact, bushes, but "berries/fruits" could not be said to be a sub-taxon of "bushes" because there are some, such as strawberries and kinnikinnick, that do not fit into the "bush" category.

"Mosses and moss-like plants" is another ubiquitous general plant category in northwestern North American languages, although it is not discussed by Brown (1984) except in a passing reference to "lichens" (p. 14).¹⁴ In Lillooet and Thompson, as with other northwestern North American languages, mosses and lichens are generally classed together (along with liverworts and other moss-like plants such as clubmosses), although differences in color and form are often given recognition. Some rather important or unique lichens, such as black tree lichen, wolf lichen and lung lichen, are called by more specific names, and may not even be perceptually included in the residual "mosses ..." category by some individuals. In Thompson, lichens, especially the broad, thallose species, are sometimes called **papéyfte tak** $q^W z em$ ('frog moss'). Some native speakers consider them to be "a kind of moss," whereas others say they are "similar to mosses."

Habitat and growth form seem to be the overriding factors in distinguishing among various types of mosses and lichens. In Lillooet, for example, various thallose lichens growing on the ground [e.g. *Peltigera aphthosa*] are called $\lambda an^2 \cdot \hat{a} l f a x^W$ (ground/earthear'; those growing in trees (e.g., lung lichen) are called $\lambda an^2 \cdot \hat{a} l q^W$ ('wood/tree-ear'). In Thompson, mosses and lichens growing on trees are called $\lambda an^2 \cdot \hat{a} l q^W$ ('wood/tree-ear'). In Thompson, mosses and lichens growing on trees are called $q^W zem \cdot \hat{e} y q^W$ ('wood/tree-moss'] and those on the ground, $n \cdot q^W zem \cdot \hat{u} y f h x^W$ ('ground-moss'). Additionally, Annie York recognized several other loosely defined categories: "long moss," "short moss," "rock moss," "water moss" and "swamp moss." She, as a native botanical specialist, could distinguish many different types of mosses and lichens within these categories, but many of the people consulted, like most non-native people in the region, did not

perceive many different kinds. As Alec Peters, a Pemberton Lillooet speaker, remarked when shown a variety of different mosses and lichens, "They're all *parsams* to me!"

In both languages, the "mushrooms and fungi" category is an important one, including several named species of high cultural significance and a large number of residual unnamed types of little cultural significance. The class names themselves certainly must have derived, or are in the process of deriving, through expansion of reference, from the generic-level names of the most salient types of mushroom. Towards the coast—in Lower Lillooet and Lower Thompson—as well as in the Thompson dialect spoken around Lytton, it is the name for pine mushroom [Lillooet - (s)-gams; Thompson — *dames*] that is elevated to the general class name, at least optionally. For the Nicola Valley Thompson, the "cottonwood" mushroom (Fig. 7) has become the "type" for mushrooms in general, and its name, max-qi?, is used, at least by some, for mushrooms generally, including commercial fresh or canned mushrooms (Mabel Joe, pers. comm., 1985). In the Fraser River dialect of Lillooet, the term malx-gin, (said to be borrowed from Shuswap; lit. 'cottonwood/stick-head/top') pertains to "cottonwood" mushroom specifically and a cognate form of the Thompson term, max-qi?, (s)-max-aqa? is applied as a general name for "any mushroom" (e.g. Desmond Peters, Bill Edwards, pers. comm., 1985; cf. also Turner, Kuhnlein and Egger, 1987).15

"Vine" is considered to be one of the five "universal life form" categories by Brown (1984). However, there are very few indigenous vine species in northwestern North America. Hence "vine" as a major plant category has low salience in Lillooet and Thompson. One outstanding vine species is white clematis, called **docusninina** (cf. **docus**) (tangled/hard to untie') in Lillooet and **doc**-**d**

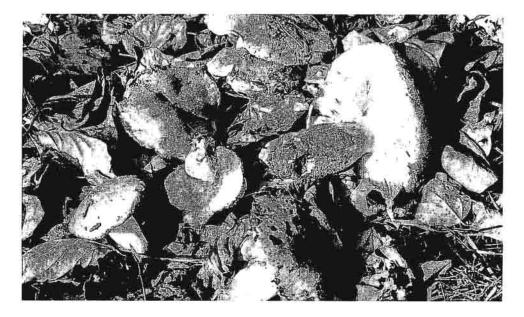


FIG. 7.—"Cottonwood" mushroom, the "type" for mushrooms in general in Nicola Valley Thompson.

as-it-grows') in Thompson (Steedman 1930:459). These three species, therefore, would have been the only members of an original "vine" class in Thompson; it could hardly be called a major life form category. Now, however, with the introduction of various cultivated vines, such as grape, Virginia creeper and English ivy, the "vine" class has expanded, and the name *qac-qac-usninus* now has, to some people but not to others, broader application as a general term for "vine" in Thompson. In Lillooet, however, there is no real evidence to indicate the existence of a "vine" class, past or present.¹⁷

Randall and Hunn (1984:340) report that in Sahaptin there is a named, highly inclusive "edible root" class. In Lillooet and Thompson "edible roots [and other underground parts]" were also of high importance in the traditional economy, but in neither language is there a term which refers to any and all edible underground parts, or to plants which bear them. Nevertheless, plants such as spring beauty, avalanche lily, bitterroot, tiger lily, chocolate lily, and wild onions do seem to form a discrete perceptual unit. Most Lillooet and Thompson speakers discuss them as a group, one after the other. For example, Annie York, in talking about combinations of foods, noted: " . . . The food that goes with meat is avalanche $lilv^{18}$ corms, bitterroot, tiger lilv bulbs, chocolate lily bulbs, spring beauty corms ... and if you can get balsamroot ... you eat it with meat, and that wapato ... and the other kind, "wild carrot" ... they don't mix that with anything ... and the silverweed ... they just cook that by itself ... "Within the course of the conversation she had mentioned, consecutively, nine "root" foods. If the languages had continued to develop without European influence, I would speculate that names would evolve for the incipient "roots" categories in Lillooet and Thompson, probably, as happened for Nitinaht (Turnet et al. 1983:48), by a process of expansion of reference of the name of one of the most important types of edible roots, perhaps bitterroot or yellow avalanche lily.

Some Lillooet and Thompson taxa do not fit within any of the major "life form" level categories mentioned here. Fireweed, for example, seems to fall conceptually between the "tall bushes" and "low herbaceous plants" categories, but not actually within either. Cow-parsnip, too, is not generally incorporated within any of these major classes, nor are the large fern species, although Annie York used the term **stuyt-úyńx**^W for two small ferns, parsley fern and licorice fern.

Other plant classes in Lillooet and Thompson could well be considered that are comparable to some of those already described. These include "medicines" and "water plants." These classes are less rigorously defined and overlap broadly with other major categories. Thus, their relationship with other major plant classes is not hierarchical. I will discuss them in a future paper along with a whole range of other heterogenous "intermediate" level plant classes existing in these two languages.

DISCUSSION

Lillooet and Thompson conform with many other pre-industrial language groups in having no single free-standing term denoting "plant," but they and a number of other northwestern Salishan and Wakashan languages do incorporate "plant" suffixes in many of their generic-level plant names. This phenomenon is somewhat comparable to the use of "plant" in "eggplant" or "spiderplant" but is more pervasive. Many generic level names are developed by adding the "plant" suffix to the term for the most salient part of the plant. This would be as if, in English, the use of "potato *plant*," "strawberry *plant*," "globe artichoke *plant*" were more or less mandatory when referring to these plants in an abstract context.

The origin of this suffix is still subject to speculation, but because it is so widespread in the Salishan and Wakashan languages, it must have great antiquity. Possibly it derived from a free-standing word for "tree" or "tree/bush," whose meaning expanded

to "plant, general" but whose form was reduced to a suffix. A similar situation exists with body part terms (C. Brown, pers. comm., 1985). It would be interesting to know how many other languages of pre-industrial societies have concise linguistic means of recognizing "plantness" without actually having in evidence a free-standing term for "plant."

Only the "tree" category in each language and the Thompson "bush . . . " category conform with virtually all the criteria of "life form" classes as prescribed by Berlin and his colleagues (cf. Berlin, Breedlove and Raven 1974:26; Brown 1984:4). The other general categories differ in various ways (see Table 7). However, the "tree" and possibly Thompson "bush . . . " class names appear not to have originated by the most common means (Berlin 1972:71), through expansion of reference from generic-level terms.

Several other general categories in Lillooet and Thompson differ from the Berlin "life form" by incorporating very few named generic level taxa, while at the same time encompassing a large number of recognizably distinct but unnamed terminal taxa. In all cases the named plants within these categories are highly salient, being very common or distinctive and/or culturally significant, whereas the unnamed plants are generally low in cultural importance. In Thompson, for example, there are only about ten named kinds of plants that fit into the s-yiqm ("grasses") category, yet s-yiqm could be applied by Thompson speakers to at least 25 kinds of plants that can be distinguished by native botanical specialists. A similar situation exists for the "low, herbaceous broadleaved plant," "flower," "moss . . . " and "mushroom" categories in both languages. I have termed these "empty" categories because they include few or no named subtaxa while incorporating a large number of covert types. These "empty" categories also exist in Haida, Bella Coola, Nitinaht and other northwestern North American languages (Turner 1974:35; Turner et al. 1983:47). They also occur in Sahaptin, but, in this language, the "grass" and "flower" categories exclude the more salient, named kinds altogether, and incorporate only unnamed types of no cultural significance (Hunn 1982:834).

Lillooet and Thompson general categories are not all defined solely by morphological features. As Hunn [1982] observes, there is a utilitarian factor in plant classification which is not accounted for in the scheme of Berlin, Breedlove and Raven [1973:215, 1974:26], although Brown (1984:10) gives some recognition to categories defined by cultural importance in describing "life form" classes. The "berries/fruits" categories in Lillooet and Thompson are the most obvious examples of utilitarian major plant classes. However, the "low, herbaceous broad-leaved plants" taxa also reflect cultural significance. In this case, plants are generally incorporated on the basis of non-use. The utilitarian factor is also evident in the "grasses" category, where a nomenclatural and perceptual distinction is made in Lillooet between "grass" and "hay." Even many members of the "flowers" category in Thompson are attributed characteristics which are not solely morphological—namely some magical power that makes them good for charms.

As these examples show, there is sometimes no clearcut distinction between morphological and utilitarian features of plants. The essence of "treeness" is the woody xylem tissues (and to a lesser extent, the phloem tissues of the bark) that support the tree and allow it to attain its large size. The woody tissue, because of its chemical composition and physical attributes, also makes a good fuel and an ideal construction material. It is not surprising, therefore, that "wood" and "tree" are synonymous in many languages, or that the name for "tree" often derives historically from the name for "wood" (Witkowski, Brown and Chase 1981:3). Another example of the dualism of certain taxa is seen in the Haida term **xil**, which means both 'leaf' and 'medicine' and is the name of a major class of leafy, herbaceous plants, even being incorporated mandatorily in the generic-level names of many members of this class (Turner 1974:31). Van Eijk (pers. comm. 1986) points out that the Salish general plant suffix itself has a utilitarian bias because it most often applies to plants having culturally significant products. Finally, whereas the Berlin and Brown "life form" classes are mutually exclusive (cf. Berlin, Breedlove and Raven 1974:25), I have found, in conversations with native speakers of Thompson, Lillooet and other northwestern languages, that the structure of taxonomic categories for plants is not rigid, and that, depending on the context of conversation, a particular plant could be assigned to two or even three different major classes. Just as in English our class of "wild flowers" might sometimes incorporate wild rose, and at other times wild rose would be called a "bush," so in Thompson, wild rose might be included as a "bush," a "flower" or a "fruit," depending on context. In English folk classification, "vine maple" might be termed under various circumstances a "shrub" or a "tree" (but not usually a "vine"), so it might in Lillooet or Thompson be assigned to the "bush" or "tree" class. The overlap between "flowers" and "ground-growth" has already been demonstrated. There is, of course, individual variation too, as to which plants are perceived as belonging to a particular class, just as in English, different people may have different ideas about which plants are classed as "weeds."

There is no way of knowing, without further study of all the Salish languages and a reconstruction of proto-Salish, whether Lillooet and Thompson major plant categories follow the lexical encoding sequence for folk botanical life-forms proposed by Brown (1984:24). Brown (1984:143) classes Lillooet as a "Stage 3" language, having only two life-forms, "tree" and "grass," with an incipient "grerb" class, based on his interpretation of information in Turner (1974). Thompson was not included in Brown's survey. If it were, it would qualify as a "Stage 6" language, since it has named classes for "tree," "grass," "grerb," "bush" and "vine." It seems strange that two closely related languages, which must surely have evolved within the same time frame, should be shown by this scheme to be so different. Perhaps if other major classes were included, such as "mosses …" and "mushrooms," which are probably more relevant to peoples of northwestern North America than "vines," there would not be such a discrepancy. Additionally, the differences would diminish if the Lillooet "grerb" class were given real status, equivalent in its scope and application to "tree," even though it has few or no named members.

SUMMARY AND CONCLUSIONS

Lillooet and Thompson, two closely related Salish languages of northwestern North America, are similar, though not identical, in their perception and encoding of major plant classes. Both lack free form terms for "plant," but have suffixes on many of their generic-level plant names which denote "plantness." Both have named categories of "trees," "grasses," "low, herbaceous, broad-leaved plants," "mosses," "mushrooms" and "berries." Thompson also has a named category of "bushes," whereas this class is only incipient in Lillooet. In both languages there is an incipient, but unnamed class of "edible roots."

The historical derivation of the category names is still subject to question. The term for "trees" may well have originated in a manner contrary to the most common derivation pattern suggested by Berlin (1972:71), as may have the Thompson name for "bushes." Names for "grasses," and/or "hay" on the other hand, probably originated through expansion of reference of the generic-level name for bluebunch wheat grass.

A number of the major categories are at least partially defined by utilitarian, rather than solely morphological features. These categories are not necessarily mutually exclusive. Most are residual, having a few highly salient named terminal taxa and many recognizably distinct, but unnamed, members. Most of the named taxa have, or had in the past, a high level of cultural significance, particularly as foods, materials or medicines.

The major premise of folk classification systems appears to be convenience to the originator and user. There are no rules that must be adhered to, as developed in our modern scientific biological classification system. The famous linguist Edward Sapir once wrote:

"Unfortunately, or luckily, no language is tyrannically consistent. All grammars leak." (Sapir 1921:38). One might equally well say, "All folk taxonomies leak." The major criterion in folk systems is that they allow communication between members of a society. It is not surprising, therefore, that folk categories like those of Lillooet, Thompson or English are fluid and sometimes ambiguous. Context is of paramount importance. Intonation, gestures and the way words are used within a general topic of conversation, can convey as much as the actual words themselves. These can never adequately be incorporated into such a brief description by a non-speaker of a language. For almost any rule one tries to formulate concerning the attributes of terminology, whether it be the hierarchical nature of folk taxa or their historical encoding, there will be exceptions, probably many. Lillooet and Thompson major plant categories are good examples.

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NOTES

¹In later papers I will discuss less inclusive plant categories in Lillooet and Thompson—those at the "intermediate" and "generic" ranks.

²There is still some question among scientists whether fungi should be considered plants, or whether they are different enough from other botanical organisms that they should be considered as belonging to a separate "kingdom." Even Algae are now frequently classed in their own "kingdom." Blue-green algae and related bacteria are generally classed in a separate "kingdom". Slime molds, once considered close to fungi, are now usually included in a "kingdom" with simple, often onecelled organisms [cf. Whittaker 1969].

³Scientific names are provided in Appendix 2. Throughout this paper, native terms cited are written in the orthographies of the original sources, except in Lillooet, where symbols and forms are from Van Eijk (1985). In Thompson, the orthography is standardized after L. C. and M. T. Thompson. However, note that here, \mathbf{x} is written as \mathbf{x} throughout, and, for simplicity, not all of the Thomp-

son's symbols indicating underlying analyses of Thompson terms are shown. These may be seen in Turner et al. (1984).

⁴In this paper, in reference to translations of native terms, single quotation marks are used for literal translations, and double quotation marks for general English glosses or interpretations of application.

⁵Examples of similar suffixes in neighbouring Salish and Wakashan languages include (transcription as in original sources; note **1**= **lh** = λ): Shuswap — **-âlhp/e**λ**p** [Palmer 1975:65; Kuipers 1974:64); Okanagan-Colville — **-ilhp** [Turner, Bouchard and Kennedy 1981:120]; Columbian — **-ahp** [D. Kinkade, pers. comm. 1986]; Halkomelem — **-elhp/-lhp** [Galloway 1982:5]; Straits Salish — **-ithč** [Turner and Bell, 1971:87]; Squamish — **-ay/-aý** [R. Bouchard, pers. comm. 1976]; Sechelt — **-ay** [J. Timmers, pers. comm. 1972]; Comox — **-ay** (R. Bouchard, pers. comm. 1973); Upper Chehalis — **-intf/-int** [D. Kinkade, pers. comm. 1986]; Bella Coola — **-lhp** (Turner 1973:209); Nitinaht — **-ápt** (Turner and Bell 1973:288]. (The last three languages are Wakashan, a language family distantly related to the Salish Family; hence the suffixes are possibly cognate with the Salishan suffixes.)

⁶Kinkade (pers. comm. 1986) cites further evidence for an original meaning of 'upright object' (singular) rather than 'tree': in both Thompson and Columbian, the plural form for 'tree' has a completely different stem than the singular, and in Columbian the plural means 'bushes, brush' as well as 'plural upright objects.'

⁷Van Eijk [pers. comm. 1986] notes that some Lillooet speakers identify caababaa da ababaa da ababaaa

⁸Randall and Hunn (1984:333) describe such a situation in the Sinama language, where originally there was a "bird-and-moth" class, which has come to conform with folk English "bird."

⁹Hill-tout [1905:213] defines these terms as "long" and "short" grass respectively. Perhaps this reflects their original dichotomy.

¹⁰For some Lillooet and Thompson speakers the so-called "swamp grasses" are not really "grasses" at all. These "non-grasses" include a number of *Carex* species, one *Scirpus* species (*S. micro-carpus*), both in the sedge family, and even some true grasses that grow in standing water. Other speakers, however, include these as a subcategory of "grasses."

¹Here is a case of overlapping of general categories, since "speargrass," cited as an example of **s-wa?p-film x^W** "weed," is also classed as **s-cepez**, "grass."

¹²Webster's Dictionary defines "weed" as "any useless troublesome plant," although its derivation from Old English *weod*, "an herb," is indicative that it did not always have such a negative connotation. Many English folk names for plants not necessarily "useless" or "troublesome" (e.g., fireweed, gumweed) incorporate the term.

¹³One of the Nicola Valley Thompson speakers recalled that there was also a special meaning for the term, **stuyt-úymx**^W, more specific than the general category name. She said, "I heard a lot of another [plant], they call that **stuyt-úymx**^W too . . . high up in the mountains, you have to find a special plant, ask the plant for good luck. See, there's a male and a female plant, and you name that plant... the woman's name and the man's name [if you want to use the plant as a love charm] . . . and you put them together and you tell them to live together . . . That's what they call **stuyt-úymx**^W, I think." She went on to say that it was a plant that one might dream about, that would give you luck or success (Mabel Joe, pers. comm., 1984). ¹⁴Hunn [pers. comm. 1986] is inclined to categorize "moss" as a polytypic generic taxon [like Tzeltal "butterfly"]. It is true that most, if not all, of the labelled taxa encompassed by this class have names that are secondary, or composite, lexemes. However, the native speakers with whom I have discussed this class seem to accord it the same status as "tree" or "grass," and the specialists among them recognize many different types, even if not all are named. Hence I have included it here as a general class. If it is a generic, it is perceptually at rank level 1 in Berlin, Breedlove and Raven's (1973) folk taxonomic hierarchy.

¹⁵There is a general nomenclatural and perceptual division in Lillooet and Thompson reflecting the natural discontinuity between the soft, fleshy "mushrooms" growing on the ground, and the tough, leathery shelf, or bracket fungi, mostly in Polyporaceae, growing on trees and stumps. The latter are all called **djams-alq**^W ('wood/tree mushroom') in Lillooet and **skel-ule** -**ê**yq^W ('great-hornedowl-wood/tree') in Thompson. It is debatable whether these bracket fungi are considered to be "kinds of" mushrooms, or only "like mushrooms."

¹⁷Hunn [pers. comm. 1986] notes that in Sahaptin there is only a generic term *tam-qiks-kula* for the white clematis; apparently neither orange honeysuckle nor blue clematis is recognized.

¹⁸Annie York used the Thompson names for these plants in her conversation.

APPENDIX 1. Native language speakers consulted in this study (in alphabetical order of their last names, with year(s) interviewed)

Thompson

Lillooet

	A
Bill Edwards, Pavilion - 1985	Lizzie Aljam, Coldwater - 1984
Martina LaRochelle (late), Lillooet - 1972	Mary Anderson, Fourteen-Mile - 1980
Margaret Lester, Mount Currie - 1984, 1985	Bemadette Antoine, Coldwater - 1984, 1985
Charlie Mack, Mount Currie - 1974, 1985	Hilda Austin, Lytton - 1981, 1982
Sam Mitchell, Fountain (late) - 1972, 1973,	Janet Charters, Nooaitch - 1984
1974	Nora Jimmie, Nooaitch - 1984
Edith O'Donaghey, Lillooet (originally Shalalth)	Mabel Joe, Shulus - 1984, 1985
- 1985	Julia Kilroy ("Shuli"), Coldwater (late) - 1984,
Alec Peters, Mount Currie - 1984, 1985	1985
Desmond Peters, Pavilion (originally Shalalth)	Louie Phillips, Lytton - 1974, 1981
- 1985	Annie York, Spuzzum - 1973-1985
Baptiste Ritchie (late), Mount Currie - 1974	
Nellie Wallace, Mount Currie - 1984, 1985	

APPENDIX 2. Scientific names of plant species mentioned in this paper (in alphabetical order of English common names)

alder, mountain (Alnus crispa)	balsamroot (Balsamorhiza sagittata)
alfalfa (Medicago sativa)	bitterroot (Lewisia rediviva)
anemone, western (Pulsatilla occidentalis)	bitterroot, alpine (Lewisia columbiana)
arnica (Arnica spp.)	blackcap (Rubus leucodermis)
avalanche lily, yellow (Erythronium grandi-	bleeding-heart, wild (Dicentra formosa)
florum)	bluebunch wheat grass (Agropyron spicatum)
avens, large-leaved (Geum macrophyllum)	bracken fern (Pteridium aquilinum)

"bunchgrass" (see bluebunch wheat grass) buttercup (Ranunculus spp.) calypso (Calypso bulbosa) campion (Silene sp.) catchfly, night-flowering (Silene noctiflora) cedar, western red (Thuja plicata) cherry, bitter (Prunus emarginata) chocolate lily (Fritillaria lanceolata) clematis, blue (Clematis columbiana) clematis, white (Clematis ligusticifolia) columbine, red (Aquilegia formosa) cottonwood, black (Populus balsamifera ssp. trichocarpa) "cottonwood mushroom" (Tricholoma populinum) cow-parsnip (Heracleum lanatum) cranberry, highbush (Viburnum edule) currant, northern black (Ribes hudsonianum) "cut-grass" (Scirpus microcarpus) delphinium (Delphinium spp.) Douglas-fir (Pseudotsuga menziesii) fir, grand (Abies grandis) fir, subalpine (Abies lasiocarpa) fireweed (Epilobium angustifolium) forget-me-not (Myosotis laxa) fungi, bracket or shelf (Polyporus spp., Fomes spp., Ganoderma spp.] goldenrod, Canada (Solidago canadensis) harebell, blue (Campanula rotundifolia) hawthorn, black (Crataegus douglasii) hemlock, western (Tsuga heterophylla) honeysuckle, orange (Lonicera ciliosa) huckleberry, black (Vaccinium membranaceum) huckleberry, red (Vaccinium parvifolium) Indian hellebore (Veratrum viride) Indian hemp (Apocynum cannabinum) Indian paintbrush (Castilleja spp.] juniper, common (Juniperus communis) juniper, Rocky Mountain (Juniperus scopulorum) lamb's quarters (Chenopodium album) lichen, black tree (Bryoria fremontii) lichen, lung (Loberia pulmonaria) lichen, wolf (Letharia vulpina) licorice fern (Polypodium glycyrrhiza) maple, Rocky Mountain (Acer glabrum) maple, vine (Acer circinatum) monkeyflower, red (Mimulus lewisii) mullein (Verbascum thapsus) oceanspray (Holodiscus discolor) onion, nodding wild (Allium cernuum)

orchid, bog (Habenaria dilatata) orchid, rein (Habenaria stricta) Oregon-grape (Mahonia nervosa) oyster mushroom (Pleurotus ostreatus) penstemon, shrubby (Penstemon fruticosus) pine, lodgepole (Pinus contorta) pine, ponderosa (Pinus ponderosa) pine, whitebark (Pinus albicaulis) pine grass (Calamagrostis rubescens) pine mushroom (Tricholoma magnivelare; syn. Armillaria ponderosa) plantains (Plantago spp.) puffballs (Lycoperdon spp.) pussytoes (Antennaria spp.) rabbitbrush (Chrysothamnus nauseosus) rattlesnake plantain (Goodyera oblongifolia) red-top grass (Agrostis alba) reed canary grass (Phalaris arundinacea) rose, wild (Rosa spp.) rhododendron, white-flowered (Rhododendron albiflorum) rye grass, giant wild (Elymus cinereus) sagebrush, big (Artemisia tridentata) salal (Gaultheria shallon) saskatoon berry (Amelanchier alnifolia) self-heal (Prunella vulgaris) shaggy mane mushroom (Coprinus comatus) silverberry (Elaeagnus commutata) silverweed (Potentilla anserina ssp. pacifica) soapberry (Shepherdia canadensis) "speargrass" (Hordeum jubatum) spring beauty (Claytonia lanceolata) spruce, Sitka (Picea sitchensis) starflower (Trientalis latifolia) stonecrops (Sedum spp.) strawberry, wild (Fragaria spp.) sweet-clover, white (Melilotus alba) sweet-clover, yellow (Melilotus officinalis) thimbleberry (Rubus parviflorus) tiger lily (Lilium columbianum) "timbergrass" (Calamagrostis rubescens) timothy grass (Phleum pratense) tobacco, wild (Nicotiana attenuata) twinberry, black (Lonicera involucrata) twinflower (Linnaea borealis) vetch (Vicia spp.) violet, wild blue (Viola adunca) water-parsnip (Sium suave) "wild carrot" (Lomatium macrocarpum) willows (Salix spp.) wormwood, pasture (Artemisia frigida) yew, western (Taxus brevifolia)