

## "ALL BERRIES HAVE RELATIONS" MID-RANGE FOLK PLANT GROUPINGS IN THOMPSON AND LILLOOET INTERIOR SALISH

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ABSTRACT.—A total of 79 diverse, mid-range folk groupings for plants in Thompson and 38 in Lillooet, two Interior Salish language groups of British Columbia, are inventoried and discussed within the context of "intermediate taxa" as defined by Berlin, Breedlove and Raven (1973) in their General Principles of folk biology. These mid-range groupings are more restricted than general "life-form" level categories in their application but broader and more inclusive than basic "generic" level taxa pertaining to perceptually distinct types of plants. Between Thompson and Lillooet, and among them and other northwestern North American native groups studied, the mid-range groupings exhibit similarities in quality and scope.

Some would qualify as true "intermediate" taxa *sensu* Berlin and his coworkers, but many are defined primarily by utilitarian or other special purpose traits and are related through affiliation rather than inclusion. Some are overlapping, both amongst themselves and with reference to the superimposing general classes. Some contain members which, while perceptually distinct, are unnamed at a more restricted level. This is especially true for plants of low cultural significance. A number of the mid-range groupings show evidence of recent expansion or semantic alteration to accommodate new plants and plant products following contact of traditional native and European cultures.

RESUMEN.—Un total de 79 diversas agrupaciones vulgares del nivel medio para plantas in Thompson y 38 en Lillooet, dos grupos lingüísticos de Salish Interior de Columbia Británica, se inventarian y se discuten en el contexto de "grupos intermedios" como definidos por Berlin, Breedlove, y Raven (1973) en su Principios Generales de la biología vulgar. Estas agrupaciones del nivel medio son más restringidos en sus empleos que las categorías generales de "forma de vida," pero son más anchas y más inclusivas que los grupos fundamentales del nivel del "géneros," cuales pertenecientes a grupos de plantas perceptualmente distintas. Entre Thompson y Lillooet, y entre ellos y otros grupos indígenas estudiados del noroeste de América del Norte, las agrupaciones del nivel medio presentan semejanzas de calidad y de alcance.

Unas agrupaciones se calificarían de veras como "grupos del nivel medio" según Berlin y sus colaboradores, pero muchas se definen principalmente por caracteres utilitarios o de otros usos especiales, y se relatan por afiliación en vez de inclusión. Unas sobrepone otras agrupaciones del mismo nivel y también los grupos generales del nivel más alto. Unas tienen miembros que no tengan nombres en el nivel restringido aunque se perciben como distintas. Este es de veras especialmente para plantas de baja significación cultural. Unas de las agrupaciones del nivel medio muestran evidencia de expansión reciente o de alteración semántica para incluir nuevas plantas y productos de plantas después del contacto de las culturas indígenas y europeas.

RESUME.—On inventorie un total de 79 divers groupes populaires du rang moyen des plantes dans Thompson et 38 dans Lillooet, deux groupes linguistiques du Col-

umbie Britannique, et les discute dans le contexte des "groupes intermédiaires" comme défini pour Berlin, Breedlove, et Raven (1973) dans ses *Principes Généraux de la biologie populaire*. Ces groupes du rang moyen sont plus restreints que les catégories générale des "formes de la vie," mais sont plus large et plus inclusifs que les groupes du rang de "genre," qui ont rapport au types des plantes qui on perçoit comme distincts. Entre Thompson et Lillooet, et entre elles et autres groupes linguistiques étudiés du Nord-ouest de l'Amérique du Nord, les groupes du rang moyen exhibent des ressemblances de qualité et de portée.

Quelques groupes qualifierient vraiment comme groupes "intermédiaires" suivant Berlin et ses collaborateurs, mais plusieurs se définent principalement par des traits utilitaires ou d'autre usage spécial et sont apparentes par l'affiliation au lieu de l'inclusion. Quelques-uns se chevauchent, aussi bien avec ses mêmes qu'avec les classes généraux du rang supérieur. Quelques-uns ont des membres que sont sans nom au rang plus restreint, quoique l'on les perçoit comme distincts. C'est particulièrement vrai chez les plants de moins importance culturelle. Quelques-uns des groupes du rang moyen montrent de l'évidence de l'augmentation récente ou de changement sémantique après le contact des cultures natives et européenne.

## INTRODUCTION

. . . The *sx<sup>w</sup>usum* [soapberry] is a relative of *taśáse* [squaw currant]—sticky, red berries. It's got the same kind of woolly [scurfy] leaves. I don't know if it has any other relatives. That's the only one I know that's similar to it, and the old people always say, "That's *sx<sup>w</sup>usum*'s relative." You see, all berries have relations . . . (Annie York, Spuzzum, B.C., tape transcript, 1975).

The above quotation by Annie York, a native Thompson speaker and plant specialist, is representative of a perceived, apparently traditional, relationship between two distinct types of plants—soapberry and squaw currant—in the Thompson worldview. It is this type of association, termed "mid-range grouping," that is the subject of this paper. Mid-range groupings are identified in this study by their intermediate range of inclusiveness in Thompson and Lillooet folk plant classifications. Viewed in a broadly interpreted hierarchical scheme, these groupings are more general than basic "generic" taxa denoting individual kinds of plants (e.g., soapberry and squaw currant) and less inclusive than the general categories at the "life-form" level (e.g. "berry"), as described previously (Turner 1987).

The existence in folk biological taxonomic systems of midlevel folk categories was first noted by Berlin, Breedlove and Raven (1968) who identified them as "intermediate" taxa. Mid-range groupings have since been verified in many field studies (as cited by Berlin 1986; also, Turner 1974; Turner *et al.* 1983). According to the framework of folk classification for biological systems as described by Berlin and his colleagues, their "intermediate" taxa are arranged hierarchically below major life-form categories and above taxa of generic rank (cf. Berlin 1972, 1974; Berlin, Breedlove and Raven 1968, 1973, 1974). At first, such categories were believed to be infrequent, and almost always "covert," or unnamed:

. . . We have found such [intermediate] taxa to be invariably rare in natural folk taxonomies, and . . . the classes are not linguistically labeled . . .

The rarity of intermediate taxa in folk taxonomies, but more importantly, the fact that they are not named, leads us to doubt whether one is empirically justified in establishing an absolute ethnobiological category for taxa of this rank. This question can only be resolved by further research. (Berlin, Breedlove and Raven 1973:216).

However, Berlin and his colleagues identified over 70 midlevel covert plant taxa in their research on Tzeltal ethnobotany, and, despite their initial doubts about establishing such taxa as an absolute category type, they later stress (1973:226) that, "The recognition of unlabelled midlevel taxa can be of considerable importance in understanding fundamental principles of native classification and should not be ignored . . ." In a later paper, Berlin (1976) identifies as many as 40 such groupings from Aguaruna folk botany. Recently, on the basis of more complete evidence, Berlin (1986) again stresses his conviction that, ". . . taxa of intermediate rank are common and fundamental categories of real systems."

In his research on folk biological classification Brown (1984, 1986) has so far given little recognition to mid-range groupings in describing ethnobiological ranks: "There is a sixth ethnobiological rank not represented [in Brown's Figure, based on Berlin's framework] . . . since affiliated [i.e., intermediate] classes are very rarely found in biological taxonomies." (Brown 1984:5; see also Brown 1986:1). Hunn (1982) and Randall (Randall and Hunn 1984), who are critical of Brown's "life-form universals" as being unrealistic reflections of actual folk taxa, recognize that there is a "welter of utilitarian and ecologically defined suprageneric taxa [most of which do not meet Brown's criteria for life-forms] which most peoples rely on to organize their knowledge of the natural world" (Hunn 1982). They describe several taxa, including two named, rather major categories in Sahaptin, "salmon/steelhead" and "coniferous tree" (Hunn and French 1984; Randall and Hunn 1984), which can be interpreted broadly as taxa of a mid-range level.

Hunn (1982), Randall (1976), and other researchers (cf. Bright and Bright 1965; Price 1967; Morris 1984) have presented data that contradict or at least render less certain the contentions of Berlin and his colleagues that ranked, hierarchical folk biological classification systems based on perception of overall morphological similarities are universal and are the only valid framework for folk taxonomies. Classes based on utilitarian features, and relationships through affiliation, association, and "sphere of influence" rather than stringent hierarchical inclusion are perceived by many researchers to play a significant role in folk biotaxonomies. As will be seen, data presented in this study support the views of Hunn (1976, 1982) and others that relationships based on affiliation and utility are important components of folk plant classification systems.

In previous ethnobotanical research in Northwestern North American languages, I have noted in several different languages the existence of "intermediate"<sup>1</sup> folk plant categories (cf. Turner 1974; Turner and Efrat 1982; Turner *et al.* 1983). Some of these groupings are labelled. Some are indicated by mutually or exclusively applied terminology. Some, like the "intermediate" categories described by Berlin (cf. 1976), are only "implicit," or covert, and are not actually named in any formal way. Some, unnamed in the native language itself, have been designated by English folk terms, possibly reflecting a post-contact con-

vergence of native and English folk categories (Turner 1974). Furthermore, mid-range groupings that I have identified are highly variable in scope (i.e., number of named or unnamed but perceptually distinct included members) and level of generality. Some could almost be considered at the level of "life-form" categories, since they are quite broad and are not actually included within any larger, more general category, except the "unique beginner," which is cognitively valid but unnamed by any free standing term (Turner 1987). However, these general groupings do not fit the criteria for life-forms as defined by Berlin *et al.* (cf. 1973), namely being "labelled by linguistic expressions which are lexically analyzed as primary lexemes . . ." and they may not contain many, or any, named members. Some mid-range groupings may actually encompass other, less inclusive mid-range groupings in a tiered hierarchical situation. Some could be considered as broad "generic" complexes, but, again, they do not conform to the criteria of Berlin *et al.* for taxa of generic rank, since they often incorporate two or more restricted folk taxa which are themselves labelled by primary lexemes.<sup>2</sup>

Names for mid-range plant groupings, when they do occur, are frequently polysemous with names for salient "generic" taxa included within them or which typify them. For example, in Nitinaht, a Wakashan language related to Nootka, the names for salmonberry<sup>3</sup> and Pacific silverweed can also be applied more generally to broader categories for which they are core representatives: "berries" and "edible roots" respectively. Similarly, the name for "any prickly or thorny plant" is also used in a more restricted sense for "thistles." In the first two cases, a derivation of the more general names from the "generic" level names by process of expansion of reference can be readily assumed. However, in the last, it is unclear whether the name for thistles was derived from the more general term through restriction of reference, or vice versa; the term itself means 'sharp plant' (Turner *et al.* 1983).<sup>4</sup>

## PRESENT RESEARCH

In this paper, I will describe and provide examples of mid-range plant groupings within the linguistic and cognitive systems of Lillooet and Thompson, language groups of the Interior division of the Salish language family. This work is part of a broader study comparing many ethnobotanical features of Lillooet and Thompson, groups which are closely related ecologically and culturally as well as linguistically (cf. Turner 1987, 1988a, 1988b). Their traditional economies were based on hunting, fishing and gathering of plant products. Except for growing native tobacco, they were non-agricultural, but they did practice controlled burning for habitat maintenance.

Data for this study were obtained through interviews with native speakers of Lillooet and Thompson, most of them elderly (65-85 years old). Interviews were carried out over a period of many years—since 1972 for Lillooet and 1973 for Thompson (see Turner 1987 for a list of people interviewed, as well as a map of the study area). Earlier ethnobotanical accounts, especially by James Teit (1906; Steedman 1930; unpubl. research notes, 1896-1918), were also incorporated. Descriptions of Lillooet "intermediate" categories were included in Turner (1974),

but these are reviewed in light of more recent investigations. Thompson folk plant classes are discussed in Turner *et al.* (1988, in press), which represents a compilation of ethnobotanical data for Thompson. Turner *et al.* (1985) contains a similar compilation for Lillooet.

Work on this project was done in collaboration with several linguists specializing in these languages (see Turner 1987). Interviews were carried out in English, but plant taxa were usually referred to by their native names, or simply by using growing or freshly picked specimens as samples for discussion. Mid-range plant groupings were identified and inventoried by various means, primarily through informal conversations about plants (growing and provided as fresh samples), discussions about their native names and associated terminology with native speakers, and questions to native speakers about the relationships and attributes of individual plant species and folk plant taxa at all levels of generality.<sup>5</sup> Secondly, analyses of folk plant names, with input by collaborating linguistic specialists, perceptions of native categories by these linguists, particularly J. van Eijk and L. C. Thompson (pers. comm. 1972-1986)<sup>6</sup>, and literature surveys were also used.

One Thompson speaker, Annie York (AY), has demonstrated an unusually detailed and insightful knowledge of traditional plant categories, arising from many years of intense study as a young woman with several native plant specialists, coupled with her own gifted intelligence, experience and recollective capacity. She was interviewed on many occasions by myself and Dr. Thompson over a more than ten-year period concerning her perception of Thompson folk plant classification. Much of her knowledge has been corroborated by other Thompson people and by information reported by Teit, but, especially for mid-range groupings, her evaluation of traditional perceptions seems unequalled at present. She contributed much to the data presented here; the assumption is made that at least a substantial portion of her taxonomic beliefs were derived from cultural teachings rather than being individual and restricted to her alone. Her remarks were often accompanied, as in the introductory quotation, by an assertion that "That's what the old people say." Our conversations with AY and other native consultants were taped and transcribed; hence any quotations by them are word-for-word.

#### DESCRIPTION OF MID-RANGE GROUPINGS IN THOMPSON AND LILLOOET

Thompson and Lillooet plant classification systems seem to exhibit a wide-scale hierarchical structure, similar in general form to the framework of folk classification for biological systems as described by Berlin, Breedlove and Raven (cf. 1973). As will be seen, however, Thompson and Lillooet folk groupings within this general structure do not always conform to the folk taxa of Berlin and his collaborators. General plant categories in Thompson and Lillooet, at the "life-form" and "unique beginner" levels of inclusion, have been discussed in a previous paper (Turner 1987). Subordinate to these broad classes, but still more general than the hundreds of basic "generic" level taxa in these languages, are a multitude of associations and linkages among plants, some of which correspond with the intermediate taxa of Berlin *et al.* (1973).

It would be impossible to enumerate or describe completely all of these mid-range groupings, because many represent fleeting and casual associations, varying perceptually from one person to another, from one locality to another, or over time. Like the covert categories of Berlin *et al.* (1968; Berlin 1976) and Randall (1976), many are unnamed. However, some seem quite enduring, being recognized by at least two members of the language community interviewed independently, or by one person, such as AY, during two or more well-spaced interviews. Many are encoded in the languages by simple or complex terms (see Tables 1 and 2).

TABLE 1.—*Examples of broad mid-range plant groupings in Thompson. (Where one member is dominant, it appears in boldface. Recently expanded categories with introduced members are indicated by an asterisk\*.)*

Associated native term <sup>1</sup>	English approximation (given by NT)	Botanical equivalent (criteria for recognition) <sup>2</sup>	Plants included (according to native consultants)
<b><i>p̄e/p̄éȳte tək</i></b> <i>q̄wzém</i> ('frog moss') (generic for green peltigera)	"thallose lichens" (or sometimes any lichens)	thallose lichens (1)	lung lichen, dogtooth lichens, rock tripe, parmelia, wolf lichen
<i>q̄wzem-éyq̄w</i> ('tree-moss')	"tree mosses and lichens"	none (6)	black tree lichen (to some), tree hair, stolon moss, and other bryophytes and lichens growing on trees
<i>n/q̄wzem-úym̄x̄w</i> <sup>3</sup> ('ground-moss')	"ground mosses and lichens"	none (6)	reindeer lichen, rhacomitrium, hair-moss and other bryophytes and lichens growing on the ground
<i>k̄ās-t tək</i> <i>q̄āmes</i> ('bad (pine) mushroom')	"inedible mushrooms"	none (4a)	lactarius, russula, and other species considered inedible or poisonous
<i>q̄āmes</i> (generic for pine mushroom); <i>mə k̄q̄i?</i> (generic for "cottonwood mushroom") (NV)*	"edible mushrooms"	mostly basidiomycetes (4a)	pine mushroom, "cottonwood" mushroom, "slimy mushroom; commercial mushrooms

TABLE 1.—Examples of broad mid-range plant groupings in Thompson. (Where one member is dominant, it appears in boldface. Recently expanded categories with introduced members are indicated by an asterisk\*.) (continued)

Associated native term <sup>1</sup>	English approximation (given by NT)	Botanical equivalent (criteria for recognition) <sup>2</sup>	Plants included (according to native consultants)
<i>s/kel-ule?-éyqʷ</i> (‘great-horned-owl-wood’)	“tree fungi”	Polyporaceae (7)	bracket, or shelf fungi (espec. larger types)
<i>ʔuxʷn</i> (generic for <i>E. hyemale</i> )	“horsetails”	<i>Equisetum</i> spp. (7)	common and giant horsetails, scouring rushes
none	“ferns”	various fern families	bracken, sword fern, lady fern, spiny wood fern, and others
<i>wmex tək ʔe?kniix tək sγép</i> (‘it lives forever tree’)	“evergreen trees”	Gymnospermae (1)	red cedar, junipers, pines, spruces, firs, and other evergreens
<i>kəm-ý-éke?</i> (‘conifer needles’)	“needle-bearing trees”	Pinaceae, Taxaceae (1)	true firs, larch, pines, spruces, hemlocks, yew
<i>məpéke? u?ex tək sγép</i> (‘it’s stripped off tree’)	“deciduous trees”	none (2)	maples, alders, dogwood, willows, larch
<i>?esčəkqĩñke? tək sγép</i> (‘it has catkins tree’)	“catkin-bearing trees”	Betulaceae, Salicaceae (2)	alder, birch, willow, cottonwood
none*	“potatoes”	none (4b)	wapato (‘‘swamp potato’’), yellow avalanche lily, spring beauty (‘‘Indian potato’’), garden potato and other corm or tuber producing edible plants
<i>qʷlêwe(?)</i> generic for nodding onion)*	“onions”	<i>Allium</i> spp. and other Liliaceae (plus 1 <i>Carex</i> ) (4b)	<b>nodding onion</b> , Hooker’s onion, cluster lily, cultivated onion, small indet. sedge

TABLE 1.—Examples of broad mid-range plant groupings in Thompson. (Where one member is dominant, it appears in boldface. Recently expanded categories with introduced members are indicated by an asterisk\*.) (continued)

Associated native term <sup>1</sup>	English approximation (given by NT)	Botanical equivalent (criteria for recognition) <sup>2</sup>	Plants included (according to native consultants)
<i>kə́l̥wət</i> (generic for false Solomon's-seal)	"false Solomon's-seal and relatives"	<i>Smilacina</i> spp., <i>Streptopus</i> spp., <i>Disporum</i> spp. in Liliaceae (4a)	<b>false</b> and star-flowered <b>Solomon's-seal</b> , twisted stalk, fairybells
<i>ʔléntxw</i> (generic for tule)	"bulrushes"	none (6)	tule, cattail, scouring rushes, round-stem rushes
<i>s/taʔx-áns tək stuyt-úym̥xw</i> ('ground-growth food')*	"green vegetables"	none (4b)	<b>cow-parsnip</b> , burdock and rhubarb (both introd.), fireweed, salmonberry, thimbleberry, "Indian celery"
<i>kéw-kwu</i> (generic for big sagebrush)	"sagebrushes"	<i>Artemisia</i> spp. and <i>Chrysothamnus</i> (4a)	<b>big sagebrush</b> , pasture and field wormwoods, wild tarragon, western sage, rabbitbrush
none	"balsamroot and relatives"	various members of Asteraceae (1)	<b>balsamroot</b> , woolly sunflower, arnicas, brown-eyed Susan, sunflowers
<i>ʔesnt̥t-úym̥xw tək stuyt-úym̥xw</i> 'trailing-on-the-ground ground-growth'	"ground-creepers"	none (2)	orange honeysuckle, trailing wild blackberry, kinnikinnick, twinflower
none*	"highbush cranberry and relatives"	none (2)	<b>highbush cranberry</b> , snowball bush (introd.), red-osier dogwood, ninebark
<i>ʔik-étp</i> (generic for kinnikinnick)	"kinnikinnick and relatives"	none (2)	<b>kinnikinnick</b> , twinflower, false box, prince's-pine, pyrolas

TABLE 1.—Examples of broad mid-range plant groupings in Thompson. (Where one member is dominant, it appears in boldface. Recently expanded categories with introduced members are indicated by an asterisk\*.) (continued)

Associated native term <sup>1</sup>	English approximation (given by NT)	Botanical equivalent (criteria for recognition) <sup>2</sup>	Plants included (according to native consultants)
none	"Labrador-tea and relatives"	various members of Ericaceae (1)	<b>Labrador-teas</b> , swamp-laurel, false azalea, white-flowered rhododendron
none*	"bush-size huckleberry relatives"	<i>Vaccinium</i> spp. (taller types) (4a)	<b>black huckleberry</b> , red huckleberry, Alaska and oval-leaved blueberries, commercial blueberries
? <i>imixw</i> (generic for dwarf mountain blueberry)	"low-growing blueberry relatives"	<i>Vaccinium</i> spp. (low types) (4a)	<b>dwarf mountain blueberry</b> , grouseberry, Cascade, velvet-leaved and bog blueberries
<i>n-tət/tt-újmxw</i> ('trailing-over-the ground')*	"peavines"	various members of Fabaceae (4a)	vetches, milk-vetches, wild peas, clovers, garden peas
<i>s/xákiʔt</i> (generic for fireweed)	"fireweed and relatives"	none (2)	<b>fireweed</b> , willowherbs, evening-primrose, goldenrods, louseworts
<i>s/q̄wuq̄wyép</i> (generic for wild strawberry)*	"strawberry and relatives"	<i>Fragaria</i> spp. and one <i>Rubus</i> (4b)	wild strawberries, trailing wild raspberry, domesticated strawberry
none*	"cherries"	<i>Prunus</i> spp., <i>Oemleria</i> , and <i>Rhamnus</i> (4b)	<b>choke cherry</b> , bitter cherry, cultivated cherry, cascara (for some), Indian-plum
none*	"raspberry and relatives"	<i>Rubus</i> spp. (4a)	wild and garden raspberries, blackcap, salmonberry, loganberry
<i>stx-átp</i> (generic for various willows)	"willows"	<i>Salix</i> spp., plus <i>Elaeagnus</i> (7)	willows, silverberry

TABLE 1.—Examples of broad mid-range plant groupings in Thompson. (Where one member is dominant, it appears in boldface. Recently expanded categories with introduced members are indicated by an asterisk\*.) (continued)

Associated native term <sup>1</sup>	English approximation (given by NT)	Botanical equivalent (criteria for recognition) <sup>2</sup>	Plants included (according to native consultants)
none	"poisonous plants"	none (3)	Indian-hellebore, water hemlock, mountain bells, rein orchid, death camas, baneberry, anemone
<i>s/čūm-ms-s e</i> <i>p̄āṣke?</i> (‘hummingbird’s sucking-substance’)	"hummingbird flowers"	none (4b)	<b>shrubby penstemon</b> , penstemons, orange honeysuckle, campanulas, collomia, columbine, Indian paint-brushes
<i>n-kwə/kwaxm-ús</i> (‘spring-salmon eye’)(generic for various buttercups)	"buttercup-like flowers"	none (2)	buttercups, large-leaved avens, cinquefoils, yellow monkey-flower
<i>s-wəl/wl-íqt</i> (‘rash-causing’)	"rash-causing plants"	none (3)	poison-ivy, stinging nettle, clematis, buttercups, devil’s-club
<i>mlā-mn (tāk stuyt-ūymx<sup>w</sup>)</i> (‘medicine (ground-growth’))	"medicinal plants"	none (3)	Indian-hellebore, devil’s-club, goat’s-beard, and many others
<i>mlā-mn-s e x kwis-it</i> (‘medicine for childbirth’)	"childbirth medicines"	none (3)	rattlesnake plantain, prince’s-pine, pyrolas
<i>mtol-t-ūymx<sup>w</sup> tāk s/tuyt-ūymx<sup>w</sup></i> (‘clotted-substance-under-the-water ground-growth’)	"(fine) water plants"	none (6)	green algae, pond-weeds, (marine algae); (some overlap with next class)
<i>ntuyt-ūymx<sup>w</sup></i> (‘water ground-growth’)	"(broad-leaved) water plants"	none (6)	<b>skunk-cabbage</b> , yellow pond-lily, water knotweed, and other aquatic plants

TABLE 1.—Examples of broad mid-range plant groupings in Thompson. (Where one member is dominant, it appears in boldface. Recently expanded categories with introduced members are indicated by an asterisk\*.) (continued)

Associated native term <sup>1</sup>	English approximation (given by NT)	Botanical equivalent (criteria for recognition) <sup>2</sup>	Plants included (according to native consultants)
<i>pəs/pəs pət</i> <i>s/tuyt-úymxw</i> (‘swamp ground-growth’)	“swamp grasses”	none (6)	“ <b>cut-grass</b> ,” sedges, reed canary grass, rushes (sometimes tule, cattail and horsetails)
<i>ḡapúxw</i> (‘nut’) (orig. generic for hazelnut)*	“nuts”	none (4b)	hazelnut (orig.). plus many types of imported nuts, espec. walnuts
<i>čḡ-āp</i> (‘it sticks’)*	“burr-fruited plants”	none (4b)	hackelia, stickseed, burdock (introd.), (bedstraw, by some)
<i>ḡāḡḡ-ḡāḡ-t</i> (‘spines’) (generic for thistles)	“spiny (low) plants”	none (4b)	devil’s-club, thistles, rose, spruce, gooseberry
<i>ḡā/ḡe?n-ētp</i> (‘thorn plant’)*	“thorny (large) bushes or trees”	none (4b)	black hawthorn, Pacific crabapple, holly, locust, maytree (last 3 introd.)

<sup>1</sup>Orthography for Thompson terms is based on the system used by L.C. and M.T. Thompson (cf. Turner et al., 1984), but some of the markings showing word analyses are omitted here for simplicity. Botanical equivalents for common English names used are given in Appendix 1. Abbreviations: equiv. - equivalent; espec. - especially; excl. - excluding; introd. - introduced; orig. - originally; spp. - species; LT - Lower Thompson dialect; UT - Upper Thompson dialect; NV - Nicola Valley Thompson. (Unless specified, terms occur in all dialects).

<sup>2</sup>A description and summation of these values is given in Table 4.

<sup>3</sup>Annie York, and some other Thompson speakers, also recognize named categories of “long moss,” “short moss,” “rock moss,” “water moss” and “swamp moss,” or “creek moss” (Turner et al., 1988 in press). It is debatable whether these should be considered as mid-range or “generic” level folk taxa. Some, at least, have recognizably different members, but these are unnamed at any more restricted level. The “long” types were preferred for use in chinking log houses for insulation.

Tables 1, 2, and 3 provide examples of some of the mid-range groupings seen in Thompson and Lillooet folk plant classifications. For convenience these are separated into broad, more general groupings (with roughly more than three included “generic” level plant types as recognized by native speakers—Tables 1 and 2) and smaller, more restricted, mostly including two or three “generic” level plant types (Table 3). The introductory quotation provides an example of the

TABLE 2.—Examples of broad mid-range plant groupings in Lillooet. (Where one member is dominant, it appears in boldface. Recently expanded categories with introduced members are indicated by an asterisk\*.)

Associated native term <sup>1</sup>	English approximation	Botanical equivalent (recognition category no.)	Plants included
(s)- <i>q̄ams-ālgw</i> (‘tree/wood-(pine-) mushroom’)	“tree fungi”	Polyporaceae, plus <i>Pleurotus</i> (“type”) (4a)	bracket or shelf fungi (many types); oyster mushroom
<i>q̄ams-ūlm̄axw</i> (‘ground-(pine-) mushroom’)	“inedible mushrooms”	none (4a)	lactarius species, russula species, and many others
(s)- <i>q̄ams</i> (generic for pine mushroom-P); (s)- <i>m̄ax-āqa?</i> (FR)	“edible mushrooms”	mostly basidiomycetes (4a)	pine mushroom, “cottonwood” mushroom, “slimy mushroom”; commercial mushrooms
(s)- <i>č̄akwa?</i> (generic for spiny wood fern)	“lacy ferns”	Aspleniaceae (1)	lady fern, spiny wood fern, oak fern, (bracken)
<i>q̄wlāwa?</i> (generic for nodding onion, also called ‘real/original onion’)*	“onions”	<i>Allium</i> spp., plus some other liliaceous spp. (4a)	nodding and Hooker’s onions, garden onions, mariposa lily (“sweet onions”), death camas (“poison onions”)
<i>sūx̄wam</i> (generic for balsamroot)	“sunflower-like flowers”	various members of Asteraceae (1)	balsamroot, arnicas, brown-eyed Susan, sunflowers
approx. <i>kāw-kwu</i> (generic for big sagebrush)	“sagebrushes”	<i>Artemisia</i> spp., <i>Chrysothamnus</i> (4a)	big sagebrush, pasture wormwood, field wormwood, rabbit-brush
none*	“blueberries and huckleberries”	<i>Vaccinium</i> spp., excl. <i>V. oxycoccus</i> (4a)	red and black huckleberries, Alaska, dwarf, bog and oval-leaved blueberries, commercial blueberries
<i>piys-ūp̄aza?</i> (‘pea-shoots’; borr. fr. English “peas”)*	“pea-vines”	climbing spp. of Fabaceae (4a)	wild peas, vetches, garden peas, sweet-peas

TABLE 2.—Examples of broad mid-range plant groupings in Lillooet. (Where one member is dominant, it appears in boldface. Recently expanded categories with introduced members are indicated by an asterisk\*.) (continued)

Associated native term <sup>1</sup>	English approximation	Botanical equivalent (recognition category no.)	Plants included
<i>kəlq-āž</i> (generic for large-flowered wild rose spp.)*	"roses"	<i>Rosa</i> spp. (4a)	Nootka wild rose, swamp wild rose, dwarf wild rose, garden roses
<i>cícq-až</i> (edible shoots)	"raspberry-like plants"	<i>Rubus</i> spp. (4a)	salmonberry, raspberry, (blackcap), thimbleberry
<i>tšátq-až</i> (generic for several willow species)	"willows"	<i>Salix</i> spp., plus <i>Cornus</i> sp. (4b)	all true willow species; red-osier dogwood ("red willow")
<i>māx-māx</i> ('sharp'; sometimes generic for thistles - P)	"thorny or prickly plants"	none (4b)	thistles, gooseberries, devil's-club, rose, black hawthorn
<i>qāpšw</i> 'nut' (orig. generic for hazelnut)*	"nuts"	none (4b)	hazelnut (orig.), plus imported nuts (e.g. walnuts, almonds, cashews, peanuts)
approx. <i>špāčən</i> (generic for Indian-hemp)*	"twine plants"	<i>Apocynum</i> spp., plus unrelated types (4b)	Indian-hemp, spreading dogbane, stinging nettle, (sometimes milkweed), commercial fibres (e.g., hemp)
<i>wəpax-ilməw</i> ('plant-growing-under-the-water')	"water-plants"	none (6)	wild forget-me-not, monkeyflower, water knotweed, and many others
<i>kālwat</i> (P); or <b>młomn</b> (FR)	"medicines"	none (3)	Indian hellebore, baneberry, anemone, black twinberry, and many others
<i>pəšpīštalckza?</i> ('frog-leaves')	"round-leaved herbaceous plants"	none (2)	wild lily-of-the-valley, pyrola, broad-leaved plantain

<sup>1</sup>Orthography for native names is from Van Eijk (1985), as used in Turner *et al.* (1985). Abbreviations are as in Table 1; P - Pemberton Lillooet dialect; FR - Fraser River dialect.

TABLE 3.—*Examples of restricted, mostly two- or three-membered mid-range groupings in Thompson and Lillooet. (Where one member is more dominant, it appears in boldface. Recently defined categories, arising from introduction of new types, are indicated by an asterisk\*. Recognition criteria category numbers, described in Table 4, are shown at the end of each listing.)*

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**Thompson:**

- “sword fern type” (**sword fern**, deer fern) (1)
- “bracken fern type” (**bracken**, lady fern, spiny wood fern) (1)
- “junipers” (**Rocky Mountain juniper**, common juniper, sometimes yew) (4b)
- “cedars” (**western red cedar** (fullsize), yellow cedar, krummholtz red cedar) (1)
- “true firs” (**subalpine fir**, grand fir, amabilis fir—LT only) (4a)
- “pines” (whitebark pine, lodgepole pine, white pine, ponderosa pine) (1)
- “avalanche lily type” (**yellow avalanche lily**, white fawn lily, queenscup, bog orchid) (2)
- “rice-roots” (chocolate lily, missionbells, yellowbells) (4a)
- “rhubarb”\* (cow-parsnip, domesticated rhubarb) (4b)
- “celery”\* (“Indian celery,” domesticated celery) (4b)
- “carrots”\* (“wild carrot,” domesticated carrot) (4b)
- “twine plants” (**Indian-hemp**, spreading dogbane, milkweed) (4b)
- “large-bitter-taprooted plants” (**balsamroot**, chocolate-tips) (4b)
- “Oregon-grapes” (LT only) (**tall Oregon-grape**, common Oregon grape) (4a)
- “alders” (**red alder**, mountain alder) (4a)
- “black twinberry type” (**black twinberry**, mock orange) (4b)
- “elderberries” (**blue elderberry**, red elderberry) (4a)
- “dogwood type” (**flowering dogwood**, bunchberry; not red-osier dogwood) (1)
- “soapberry type” (**soapberry**, squaw currant) (2)
- “heathers” (red mountain heather, white mountain heather, crowberry) (6)
- “shiny-leaved, broad-leaved evergreen shrubs” (pink rhododendron, salal, snowbrush) (2)
- “currants”\* (**northern black currant**, trailing currant, stink currant, red-flowering currant, domesticated red and black currants) (4a)
- “gooseberries”\* (coastal and interior wild gooseberries, domesticated gooseberry) (4a)
- “swamp parsnips” (**water-hemlock**, water-parsnips, silverweed, bugleweed) (4b)
- “spring beauty type” (**spring beauty**, Siberian miner’s-lettuce, ?broomrape) (6)
- “bitterroot type” (**bitterroot**, Columbia and dwarf bitterroots, miner’s-lettuce, ?twayblade) (6)
- “oceanspray type” (**oceanspray**, buckbrush) (2)
- “raspberries”\* (wild raspberry, domesticated raspberry) (4a)

TABLE 3.—*Examples of restricted, mostly two- or three-membered mid-range groupings in Thompson and Lillooet. (Where one member is more dominant, it appears in boldface. Recently defined categories, arising from introduction of new types, are indicated by an asterisk\*. Recognition criteria category numbers, described in Table 4, are shown at the end of each listing.) (continued)*

- 
- "thimbleberry type"\* (**thimbleberry**, wineberry) (4a)  
 "blackberries"\* (trailing wild blackberry, Himalayan and domesticated blackberries) (4a)  
 "mountain-ash"\* (mountain-ash, rowan) (1)  
 "spiraeas" (hardhack, pyramid and flat-topped spiraeas) (1)  
 "alumroot type" (small-flowered alumroot, **cylindrical alumroot**, foamflower) (1)  
 "tobacco"\* (wild tobacco, commercial tobacco) (4a)  
 "saprophytic plants" (**Indian-pipe**, pinesap, coral fungi) (6)
- Lillooet:**
- "junipers" (**Rocky mountain juniper**, common juniper) (4a)  
 "cedars" (**red cedar**, yellow cedar) (1)  
 "pines" (whitebark pine, lodgepole pine, white pine, ponderosa pine; unidentified pinelike tree of high elevations - P) (1)  
 "true firs" (**subalpine fir**, grand fir, amabilis fir - P only) (4a)  
 "wild rice" (chocolate lily, (?)missionbells) (4a)  
 "bulrushes" (tule, cat-tail, (horsetails)) (7)  
 "sweet potatoes"\* (yellow avalanche lily, silverweed, commercial sweet potatoes) (3)  
 "maples" (vine maple, Rocky Mountain maple, broadleaved maple) (1)  
 "rhubarb"\* (cow-parsnip, domesticated rhubarb) (4b)  
 "celery"\* ("Indian celery," domesticated celery) (4b)  
 "carrots"\* ("wild carrot," domesticated carrot) (4b)  
 "parsnips"\* (sweet cicely, water-parsnip, domesticated parsnip) (4a)  
 "alders" (**red alder**, mountain alder) (1)  
 "currants"\* (**northern black currant**, trailing currant, stink currant, red-flowering currant, domesticated red and black currants) (4a)  
 "gooseberries"\* (coastal and interior wild gooseberries, domesticated gooseberry) (4b)  
 "potatoes"\* (spring beauty, tiger lily, domesticated potatoes) (4b)  
 "evergreen low shrubs" (false box, snowbrush) (4b)  
 "strawberries"\* (wild strawberries - 2 spp., domesticated strawberry) (4a)  
 "raspberries"\* (wild raspberry, domesticated raspberry) (4a)  
 "blackberries"\* (trailing wild blackberry, Himalayan and domesticated blackberries) (4a)

latter, few-membered grouping or complex. This type of grouping is also described for Sahaptin by Hunn and French (1984).

Altogether, 79 mid-range plant groupings are identified for Thompson and 38 for Lillooet. The considerably higher number of Thompson mid-range associations is partly a result of the existence of a more detailed ethnobotanical inventory for Thompson, especially due to the wealth of information recorded earlier by James Teit (cf. Turner 1987; Turner *et al.* 1988, in press), and the substantial input of Annie York. However, it may also reflect a greater real botanical diversity within Thompson territory which is reflected in turn in the complexity of the system devised to organize botanical information. The number of basic, or "generic" level folk taxa in Thompson and the general level of cultural significance of plants is also apparently higher in this language compared with Lillooet, or with other neighboring languages (Turner 1988a).

Except for the greater numbers and generally more detailed and defined groupings of Thompson, the mid-range groupings of Thompson and Lillooet are generally similar and often virtually identical. This is not surprising considering the close geographical, ecological, cultural and linguistic ties between these native groups. Except for specific examples, the two languages are considered together in the following description and discussion.

As with the case cited earlier for Nitinaht "berries" and "roots," names for many of the Thompson and Lillooet mid-range groupings are derived through expansion of reference of a name for a particularly salient folk "genus" and are polysemous with the "generic" name. In fact, Hunn (pers. comm. 1988) suggests that many such cases could as well be treated as generics with type-specific polysemy. Others are named through some modification of more general terminology, or by the use of an independently derived name for the grouping, pertaining to similarities in morphology, use, habitat, or usually to a combination of these characteristics. Some of those not actually named are implied by common application of specialized terminology. For example, in Thompson, there is a term for "clustered needles" which is applied only to pines, even though there is no all-inclusive term for the four pine species in the mid-range grouping, "pines." Pines are, however, recognized as a discrete and related group, at least by AY and some others.

One common kind of mid-range grouping is the "membership by association," or "sphere of influence" type (cf. also Hunn and French 1984; Bright and Bright 1965). Here, a primary type of plant, usually of high cultural significance and having a "generic" name, is a focal taxon ("type") for a group of species in some way identified with it, usually either by appearance or function, or both. AY calls this primary plant the "boss" or "chief" of the group. This is the usual situation when the name for the mid-range grouping is polysemous with a "generic" level name. Hence, *q<sup>w</sup>lāwa?* in Lillooet and *q<sup>w</sup>lēwe(?)* in Thompson is both the "generic" level name for nodding onion (often called *q<sup>w</sup>lawal?]-ʔúl* 'real/original onion' in Lillooet) and a general name for various types of onions, both native and domesticated. In Lillooet, even death camas, which is toxic, and mariposa lily, which has no onion odour, are included, at least at the present time. In Thompson, a small unidentified sedge was included in this taxon. At present,

native people less familiar with traditional plants are inclined to use the term only for domesticated onions.

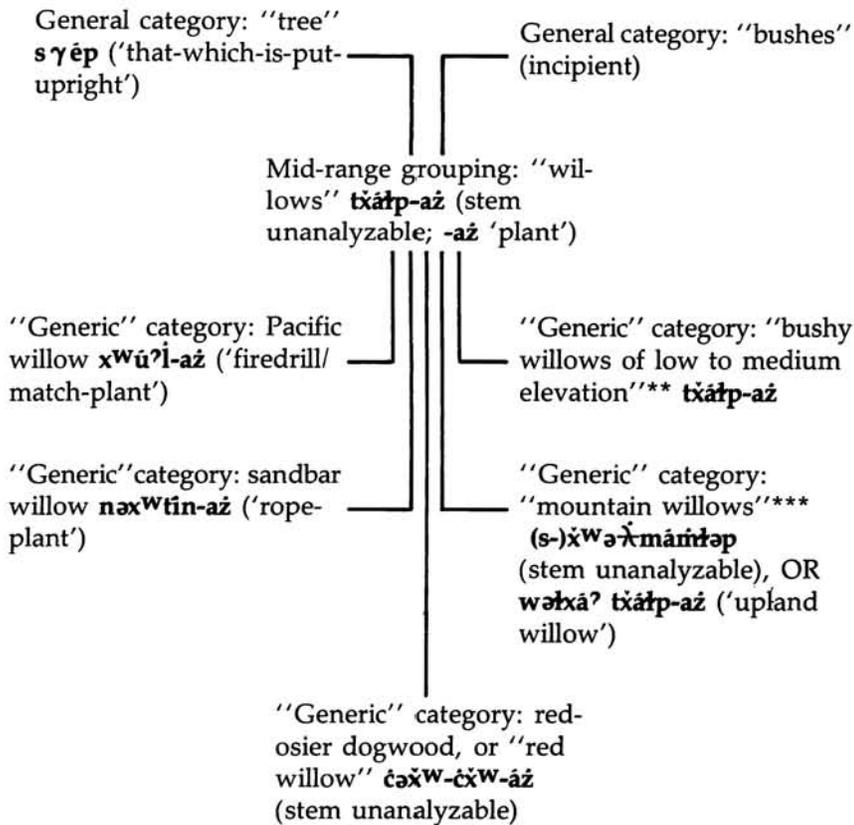
Other examples of "type" taxa around which mid-range associations are formed (occurring in more-or-less parallel fashion in both Lillooet and Thompson) include: big sagebrush, as the "type" for the "sagebrush" class; black huckleberry as the "boss" of the "blueberries and huckleberries," (as well as of the entire "life-form" level taxon "berries/fruits;" Turner 1987); balsamroot as the "boss" of a group of "balsamroot-like flowers;" Indian hemp as the "type" of a small group of stem-fibre "twine" plants; hazelnut as the "type" for "nuts;" and false Solomon's-seal as the "type" for a group of similar looking liliaceous plants in related genera (*Smilacina*, *Streptopus*, *Disporum*).

The secondary members within such taxa, if they are named at all, are often called after the primary member, frequently, in Thompson, simply by the addition of the term, *s/núkweʔ-s e . . .* (lit. 'friend/relative/cousin of . . .') to the name of the "type" plant. If it is a smaller plant, the term . . . *e scmëjts* ('child of . . .') might be used. For example, kinnikinnick is called *ʔik-čtp* in Thompson. The other plants in the class of "kinnikinnick and relatives" (i.e., prince's-pine, false box, pyrolas, and twinflower) are often called *s/núkweʔ-s e ʔik-čtp* ('friend/relative of kinnikinnick'). In this case, all of these "satellite" species also have one or more alternative "generic" level names. In other such categories they often do not.<sup>8</sup> As Hunn (pers. comm. 1988) points out, these sociological metaphors are very frequently noted in many diverse ethnobiologies.

Another commonly applied term of association in Thompson is the suffix *-úpeʔ*, meaning 'tail end,' 'bottom,' or 'root.' Not only can it refer to the root of any plant, but also, in some contexts it seems to imply 'grows together with' or 'related to.' Burdock, for example, is called 'cow-parsnip root/tail end,' and queenscup is called 'yellow avalanche lily root/tail end.'

Berlin (1972) notes that association categories such as those described here are common at all taxonomic levels in folk taxonomies. Association of non-culturally significant plants with similar culturally important plants is a common method of horizontal expansion of taxonomic hierarchies. Mid-range groupings may be quite ephemeral, and may evolve rapidly to accommodate changes in relative importance of various plants. Their versatility is demonstrated by the rapidity with which introduced weeds and domesticated plants have been incorporated into native taxonomic schemes. In some cases, such as with "potatoes," "onions," and "parsnips," the taxa have apparently merely expanded from existing traditional mid-range groupings incorporating a number of native members of varying cultural importance. Others have actually arisen where there was no pre-existing class (see Table 3 for examples).

Many mid-range groupings reflect close botanical relationships, often at the genus level, of included members. Berlin (1976) notes that at least a relationship at the family level is characteristic of most of the intermediate plant taxa delineated in Aguarana folk botany. In Thompson and Lillooet, however, there are some notable exceptions. For example, in both languages the "willows" category includes a variety of *Salix* species, several having "generic" level names, but it also includes silverberry and/or red-osier dogwood (widely known as "red willow" among native people)<sup>9</sup> (see Fig. 1). Similarly, in Thompson, large-leaved



\*The Thompson "willows" category is similar, but, at least according to AY, red-osier dogwood, or "red willow" is recognized as not actually being a kind of willow. However, silverberry, or "silver willow," in Elaeagnaceae, is considered to be a type of willow. This species is not common in Lillooet territory. There is an additional midlevel category between "trees" and Pacific willow in Thompson: mətpékeʔ uʔex tək sγēp ('it's stripped off tree') "deciduous trees."

\*\*Including Scouler's willow, Sitka willow, Hooker's willow, and many other *Salix* spp. of lower elevations.

\*\*\*Including *Salix glauca*, *S. barclayi*, *S. scouleriana* (when growing at upper elevations).

FIG. 1.—Schematic diagram of mid-range folk grouping, "willows," in Lillooet.\*

avens is usually grouped with "buttercup-like flowers" and AY, at least, considers cascara with the "cherries" and trailing raspberry with "strawberries."

The suggested criteria for recognizing and distinguishing the various mid-range groupings<sup>10</sup> are summarized in Table 4. These are seldom simple. As the table shows, the majority of the mid-range classes listed (63% in Thompson; 76% in Lillooet) appear to be defined on the basis of a combination of common characters. These include those under "Criteria for recognition" numbers 4a, 4b, 6, and 7 in the table. The largest groups, in fact, reflect common utilization combined with

morphological similarity, either superficial or botanically based (i.e., Criteria numbers 4a and 4b). Only a few of the groupings reflect a single-purpose, single-track classification based on one type of feature (e.g., having edible nuts, or deciduous leaves; cf. Criteria numbers 1, 2, 3, and 5). Even in instances, such as "poisonous plants" in Thompson (Criteria number 3), where this situation is largely true, a closer examination reveals at least a partial association of members on the basis of two or more traits in common. AY stressed that in the "poisonous

TABLE 4.—Criteria for recognition of mid-range plant groupings in Lillooet and Thompson. (For detailed inventory of groupings, see Tables 1, 2 and 3.)

Criteria for recognition	Number of Taxa		Examples (from Tables 1, 2 and 3)
	Thompson (Total: 79)	Lillooet (Total: 38)	
1. morphological similarity (reflecting close botanical relationships)	14	6	Li and Th: "pines"; Li: "maples"; Th: "balsamroot relatives"
2. morphological similarity (perceived but not necessarily reflecting botanical relationships)	11	1	Li: "evergreen low shrubs"; Th: "highbush cranberry relatives"
3. similar "use or function" only	4	2	Li: "medicines"; Th: "poisonous plants"
4. combination of common morphological and "use" traits:	37	27	
a. where morphological similarity reflects botanical relationship	19	17	Li and Th: "inedible mushrooms," "onions"; Th: "true firs"
b. where morphological similarity does not reflect botanical relationship	18	10	Li: "potatoes," "thorny . . . plants"; Th: "green vegetables," "hummingbird flowers"
5. common habitat type only	0	0	
6. combination of common habitat and morphological similarity	10	1	Li: "water-plants"; Th: "spring beauty relatives"; "saprophytic plants"
7. combination of common habitat, use and morphological traits	3	1	Li: "bulrushes"; Th: "tree fungi," "willows" (mostly)

plants" association, three of the included numbers in particular—Indian-hellebore, mountain bells, and rein orchid—were closely related. As well as being toxic, they are, in fact, morphologically similar, being herbaceous monocotyledons with an upright habit, small greenish flowers in a terminal cluster and parallel-veined leaves. (The morphological traits were not specified by AY, who noted only that they are "relatives.") Similarly, the "childbirth medicines," rattlesnake plantain, prince's-pine and pyrolas, although defined on the basis of "use" and hence included in Criteria number 3, do share similar morphological features and habitat, although again, this similarly is not necessarily specified by native speakers as a reason for the plants being related.

Some mid-range groupings are definite subsets of more general categories. For example, the Lillooet and Thompson classes of "inedible mushrooms" are in each case readily perceivable subcategories of the general class "mushrooms," and the mid-range category name actually incorporates the more general name.<sup>11</sup> Similarly, the Lillooet classes, "junipers," "cedars" and "pines," and the Thompson classes, "evergreen trees," "junipers," "cedars" and "needle-bearing trees" (the latter incorporating "true firs" and "pines"), are seen by native speakers as subclasses of the general folk taxon "tree" in each language. In fact, except for the common juniper, which has a shrubby habit, the members of these mid-range groupings are considered in both languages to be the "core," or ideal representative taxa for the major "tree" class which includes them (Turner 1987, 1988b). Figures 2 and 3 show the relationship of the various mid-range groupings within the general classes of "mushrooms" and "trees." The "trees" classification also shows an example of "tiering," or hierarchical inclusion of one mid-range grouping within another.

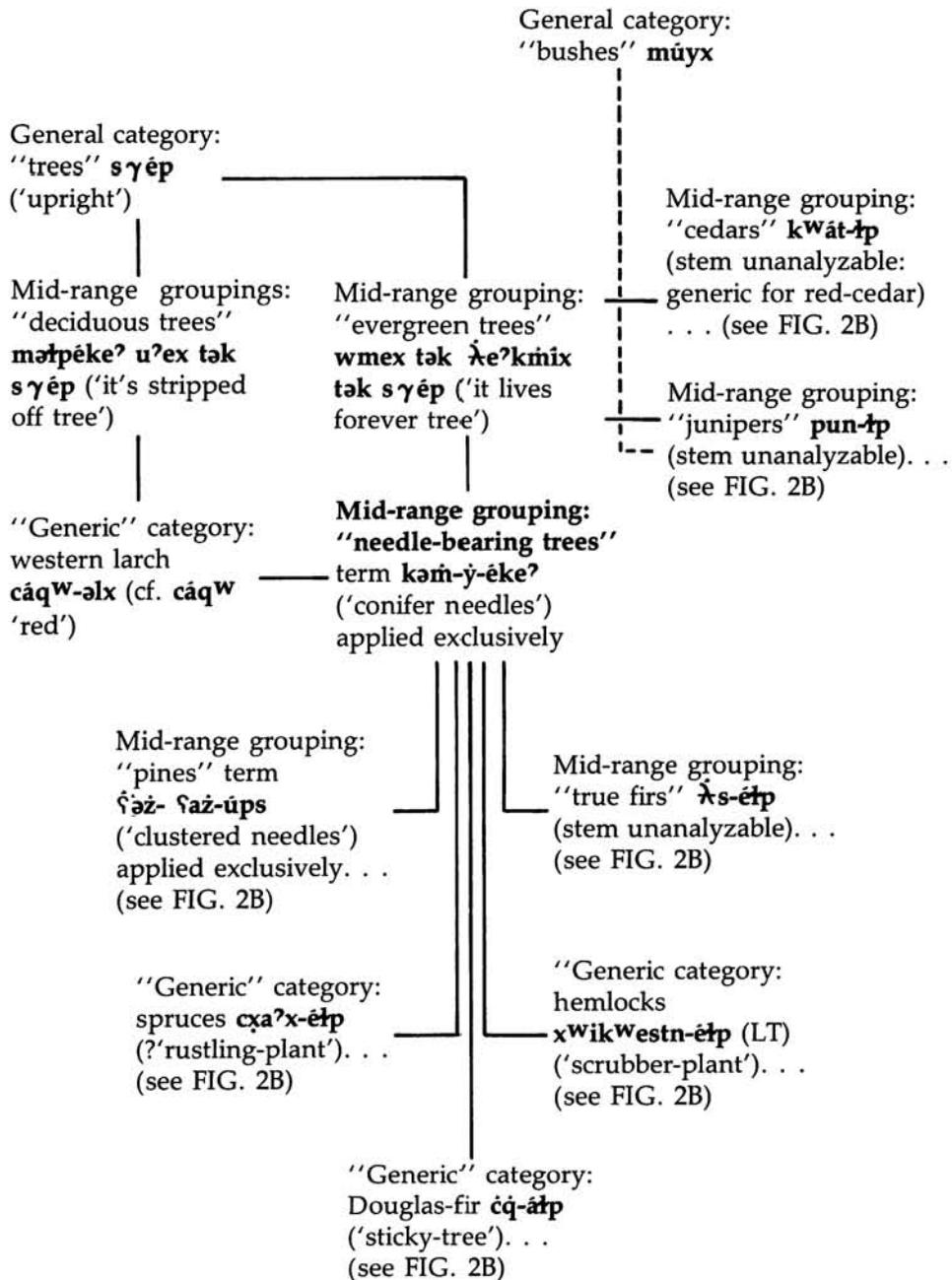
As another example, in each language there are several mid-range groupings (e.g., "onions," "sweet potatoes," and "parsnips" in Lillooet, and "potatoes," "onions," and "swamp parsnips" in Thompson) which are subclasses of an incipient major plant class of "edible roots" (cf. Turner 1987). Although the "edible root" class is unnamed by most Thompson speakers, AY used a term *sta?xâns tak k'wmi?xwêp* ('root food') for it, and said that this was a subclass of another class of food, *sta?xâns tak stuytüymx<sup>w</sup>* ('food ground-growth'), which is in turn apparently a subclass of a broadly inclusive taxon, 'ground-growth' (described in Turner 1987). Perhaps this situation is reflective of an earlier, original taxonomic system in Thompson, before the 'ground-growth' taxon evolved to its present, generally held perception as "weeds," or "low herbaceous, broad-leaved plants of low cultural importance." From AY's perspective, "medicines," too, should be considered within the major 'ground-growth' class; her definition is much broader than that usually given by most present day Thompson speakers, who equate *stuytüymx<sup>w</sup>* ('ground-growth') with "weeds." AY once said, in a discussion of false Solomon's-seal, ". . . *kəłwet* . . . is counted as medicine, so it's *stuytüymx<sup>w</sup>*." This original, broad 'ground-growth' class did not seem to include the "berries/fruits" category. Even "strawberries," which are herbaceous, were not considered to be in this class, according to AY: ". . . strawberries don't come under *stuytüymx<sup>w</sup>* . . . A strawberry is *səw'iyt* ['fruit']. That's why . . . *səw'iyt* is the first key word, and then *səw'uq'w'yêp* ['strawberry']." Hunn (pers. comm. 1988) points out that this statement implies a rank

ordering of distinctions, with 'fruit,' a largely utilitarian category, taking precedence [see also Hunn (1982) for further discussion].

Examples of other mid-range groups included within broader, more extensive groupings include (in Thompson; boldface denotes major plant class - see Turner 1987): "hummingbird flowers" and "buttercup-like flowers . . ." in "**flowers**"; "thallose lichens," "tree mosses . . ." and "ground mosses . . ." in "**mosses**"; "deciduous trees" (including "catkin-bearing trees") in "**trees**"; "ground-creepers," "peavines," "water-plants" (2 taxa) and (sometimes) "swamp grasses" in "**low, herbaceous, broad-leaved plants . . .**"; "highbush-cranberry and relatives," "Labrador-tea and relatives," and "bush-size huckleberry relatives" in "**bushes**." In Lillooet, relationships are more obscure, but similar examples occur.

Other mid-range groupings, both expanded and restricted, in both languages do not necessarily fall within broader categories (i.e., at the "life-form" level). Some are excluded from general taxa (as described in Turner 1987) altogether, some traverse the boundaries between two or more such general taxa, and some are identified with one to another general taxon depending on their life cycle stage or the cultural context in which they are viewed. It is debatable, for example, whether the Thompson mid-range grouping "green vegetables" is actually included within any more general taxon except at the highest level, the unique beginner. In fact, cow-parsnip and fireweed, two of the most important members of this grouping, are specifically excluded by most native speakers from any general taxon, even though the class name, 'ground-growth food,' implies inclusion in the "low, herbaceous, broad-leaved plants . . ." category (lit. 'ground-growth'; cf. Turner 1987). Fireweed, and even cow-parsnip, could also conceivably be considered as "flowers," since they have relatively conspicuous blooms, but in fact at the stage when they have the highest cultural salience, their edible stage, they are not blooming.<sup>12</sup> To carry this idea further, other members of this "green vegetable" taxon, salmonberry and thimbleberry, are, at their fruiting stages, core members of the "berries/fruits" "life-form" level taxon. However, at the "edible shoot" stage, in early to mid spring, they are perceptually more closely aligned with cow-parsnip and fireweed.<sup>13</sup> As seen in Table 3, none of the "life-form"/"suprageneric" groupings is purely morphological (Criteria numbers 1 and 2, per Table 4) or purely utilitarian (Criteria number 3) but almost all reflect some compromise between the two types of criteria.

Several other of the groupings in Tables 1, 2 and 3 show a similar overlapping of category boundaries, with some included members being referable to one major taxon, some to another, and some excluded altogether. This duality of classification is reflected in comments of native speakers themselves. For example, in commenting on yarrow, MJ said, "That's good for anything." It's a **flower**. It's a **medicine** too." Perhaps this statement alone is indicative that the "medicine" class, which is here included (Table 1) as a broad "mid-range" category on the basis of AY's previously cited inclusion of medicines within the general 'ground-growth' category, should actually be considered at the same taxonomic level as "flowers," which I previously treated as a general category, comparable in scope to "tree" and "grass" (Turner 1987). Schematically, this complex relationship can be shown as follows:



\*LT - Lower Thompson; unless otherwise specified, native terms are known in all dialects of Thompson. Due to restrictions of space and page format, the various groupings are spread over two figures: A and B. Position on the page is not necessarily representative of relative position in a hierarchy, although A includes the more general groupings, B the more restricted groupings.

FIG. 2A, 2B.—Schematic diagram of folk categories for "coniferous trees", a mid-range complex, in Thompson.\*

Mid-range grouping:  
"pines" term  
**ʕəž- ʕəž-úps**  
(‘clustered needles’)  
applied exclusively

"Generic" category:  
lodgepole pine  
**qʷʷit(-étp)** (stem  
unanalyzable)

"Generic" category:  
whitebark pine  
**s/čk-éʷitp** (UT)  
(pinenut-plant)

"Generic" category:  
ponderosa pine  
**s/?étqʷ-tp** (stem  
unanalyzable)

"Generic" category:  
white pine  
**zixʷe, zixʷeh-étp**  
(stem unanalyzable)

"Generic" category:  
spruces  
**čxaʷx-étp**  
(?‘rustling-plant’)

"Specific" category:  
Sitka spruce  
**čxaʷx-étp-ʷuy** (LT)  
(‘original-spruce’)

"Specific" category:  
Engelmann spruce  
**xʷ-úyínxʷ pet**  
**čxaʷx-étp** (LT)  
(‘upland spruce’)

"Specific" category:  
"silver spruce"  
**?est/piq-áyqʷ tək**  
**čxaʷx-étp**  
(‘silver spruce’)

Mid-range grouping:  
"true firs"  
**ʕs-étp** (stem  
unanalyzable)

"Generic" category:  
grand fir  
**ʕəx- ʕx-ékeʷ** (‘sweet  
branch’)(and other  
names)

"Generic" category:  
subalpine fir (and  
amabilis fir - LT)  
**ʕs-étp**

"Generic" category:  
hemlocks  
**xʷikʷestn-étp** (LT)  
(‘scrubber-plant’)

"Specific" category:  
western hemlock  
**xʷikʷestn-étp** (LT)

"Specific" category:  
mountain hemlock  
**xʷ-úyínxʷ pet**  
**xʷikʷestn-étp** (LT)  
(‘upland hemlock’)

"Generic" category:  
Douglas-fir **čq-átp**  
(‘sticky-tree’)

"Specific" category:  
coastal Douglas-fir  
(LT) **čq-átp**

"Specific" category:  
ordinary interior  
Douglas-fir  
**čq-átp**

"Specific" category:  
sugar-bearing interior  
Douglas-fir  
**s-qə-qeʷm-étp**  
(‘breast-tree’)

Mid-range grouping:  
"junipers"  
**pún-tp** (stem  
unanalyzable)

"Generic" category:  
Rocky Mt. juniper  
**pún-tp**

"Generic" category:  
common juniper  
**čičx-čax-t** (stem  
unanalyzable)

"Generic" category:  
western yew  
**íéʷxʷ-étp** (LT), OR  
**ck-íñek**  
(?‘hew-weapon’)

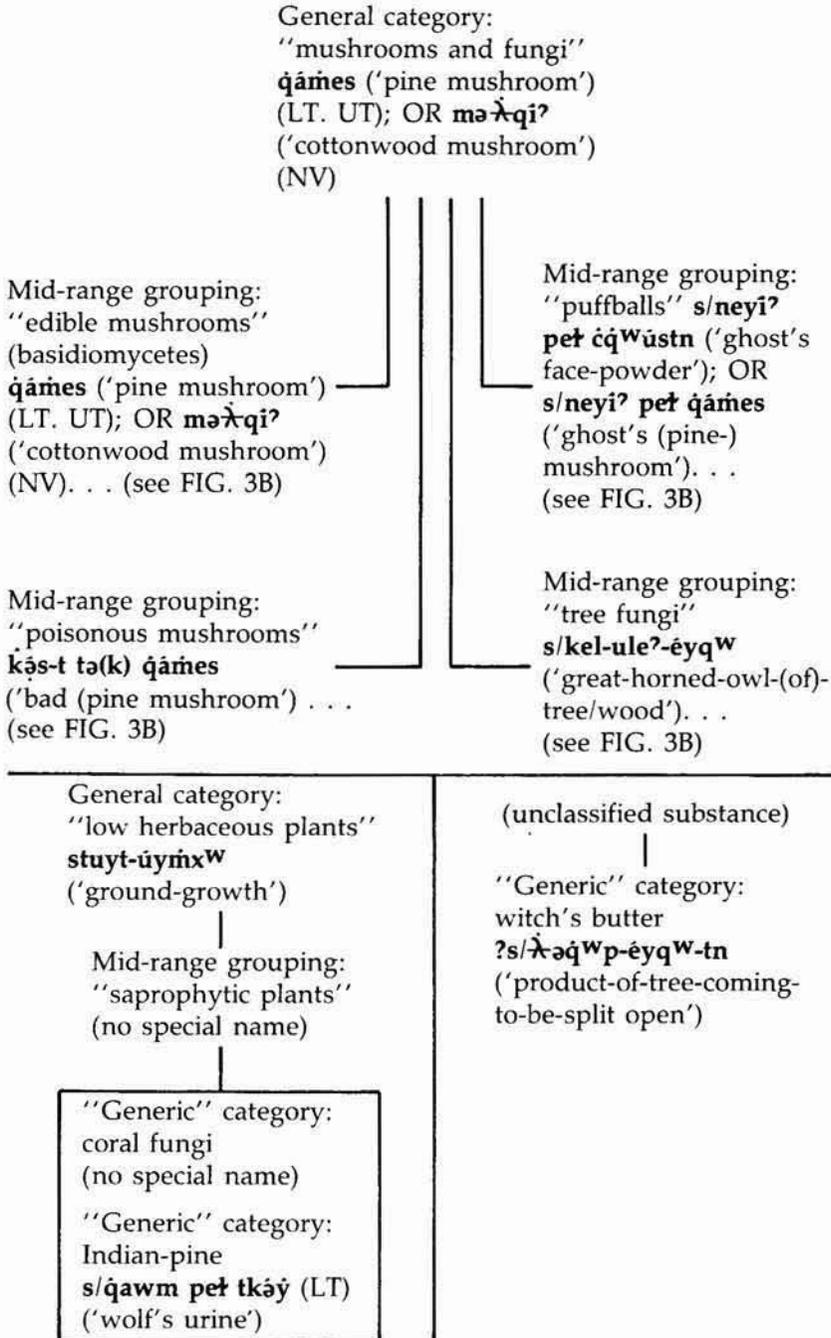
Mid-range grouping:  
"cedars" **kʷát-tp**  
(stem unanalyzable;  
generic for red-cedar)

"Generic" category:  
yellow-cedar (called  
**kʷát-tp**; "real" name  
not recalled)(LT)

"Generic" category:  
western red-cedar  
**kʷát-tp** (or variants)

"Specific" category:  
ordinary red-cedar  
**kʷát-tp**

"Specific" category:  
krumholtz form of  
red-cedar (no special  
name)



\*LT - Lower Thompson; UT - Upper Thompson; NV - Nicola Valley Thompson; unless otherwise specified, native terms are known in all dialects of Thompson. See also format note, FIG. 2.

FIG. 3A, 3B.—Schematic diagram of folk categories for mushrooms and fungi in Thompson, showing the relationship of mid-range groupings to more general and more restricted classes.\*

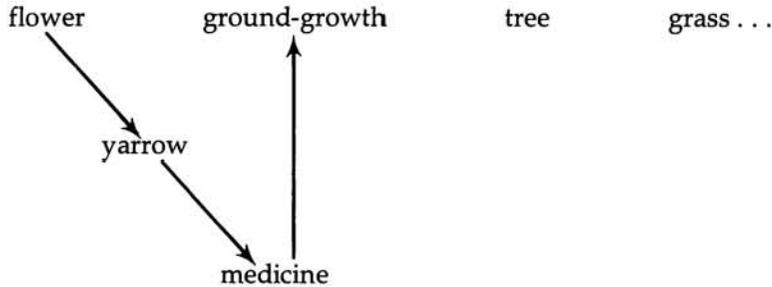
Mid-range grouping:  
 "edible mushrooms"  
 (basidiomycetes)  
**q̄āmes** ('pine mushroom')(LT. UT); OR  
**mə-ʔq̄i?** ('cottonwood mushroom')(NV)  
 "Generic" category:  
 pine mushroom  
**q̄āmes**  
 (stem unanalyzable)  
 "Generic" category:  
 "cottonwood"  
 mushroom **mə-ʔq̄i?**  
 (unanalyzable)  
 "Generic" category:  
 "slimy-top" mushroom  
**l̄ətx-e?**  
 ('slimy-thing')  
 "Generic" category:  
 chanterelle  
**q̄waq̄w̄lxwe?**  
 ('little-fish-gills')  
 "Generic" category:  
 ?St. George's mushroom  
**n/ki?ki?x-q̄in**  
 ('thunder-(storm)-head')  
 "Generic" category:  
 commercial field mushroom  
**q̄āmes p̄et séme?**, OR  
**mə-ʔq̄i? p̄et séme?**  
 ('whiteman's mushroom')  
 "Generic" category:  
 shaggy mane (no special name; or sometimes same as ?St. George's mushroom)  
 "Generic" category:  
 oyster mushroom  
**q̄āmes-éyq̄w**  
 ('tree/wood-(pine-)mushroom')  
 "Generic" category:  
 residual unnamed edibles\*\* **q̄āmes**  
 ('pine mushroom')(LT. UT); OR **mə-ʔq̄i?**  
 ('cottonwood mushroom')(NV)

Mid-range grouping:  
 "poisonous mushrooms"  
**k̄əs-t t̄ə(k) q̄āmes**  
 ('bad (pine) mushroom')  
 "Generic" category:  
*Lactarius ?resimus*  
**n/k̄əpx̄w-q̄in**  
 ('hole-in-the-top')  
 "Generic" category:  
 russula (unidentified)  
**n/c̄əq-q̄in** (?red-top')  
 "Generic" category:  
 residual unnamed inedibles\*\*  
**k̄əs-t t̄ə(k) q̄āmes**  
 ('bad (pine) mushroom')

Mid-range grouping:  
 "tree fungi"  
**s/kel-ule?-éyq̄w**  
 ('great-horned-owl-(of)-tree/wood')  
 "Generic" category:  
 unidentified willow fungus  
**kel-ule?-éyq̄w e s/t̄x-ātp**  
 ('willow's owl-wood')  
 "Generic" category:  
 Indian paint fungus  
**kel-ule?-éyq̄w e x̄wik̄westn-ētp** (LT)  
 ('hemlock's owl-wood')  
 "Generic" category:  
 oyster mushroom  
**q̄āmes-éyq̄w**  
 ('tree/wood-(pine-)mushroom')  
 "Generic" category:  
 residual class of tree bracket fungi\*\*  
**s/kel-ule?-éyq̄w**  
 ('great-horned-owl-(of)-tree/wood')

Mid-range grouping:  
 "puffballs" **s/neyi?**  
**p̄et c̄q̄w̄ústn** ('ghost's face-powder'); OR  
**s/neyi? p̄et q̄āmes**  
 ('ghost's (pine-)mushroom')  
 "Generic" category:  
 giant puffball  
 (no special name)  
 "Generic" category:  
 various smaller puffballs  
**s/neyi? p̄et c̄q̄w̄ústn**  
 ('ghost's face-powder'); OR  
**s/neyi? p̄et q̄āmes**  
 ('ghost's (pine-)mushroom')

\*\*Residual unnamed edibles include inky caps; residual unnamed edibles include Lake's bolete; residual tree bracket fungi include many different types of tree bracket fungi, mostly Polyporaceae, including sulfur fungus, *Polyporus* spp., *Ganoderma* spp., and *Laricifomes* spp.



“Willows” in both languages contain one member, Pacific willow, which is classed as a “tree,” whereas most other members are considered “bushes” (Fig. 1). Similarly, the Thompson classes “junipers” and “dogwood type,” both bi-typic, each contain a “tree” member, Rocky Mountain juniper and flowering dogwood respectively. The other members, however, are referable to different “life-form” level taxa: “bush” in the case of common juniper, and ‘ground-growth’ for bunchberry. AY commented about the dogwoods: “Yes, the little one’s *stuyt-úyínx<sup>w</sup>* [‘ground-growth’], [But not] the big one. No, that’s *sγép* [‘tree’], . . . because it’s got a big tree.”<sup>14</sup>

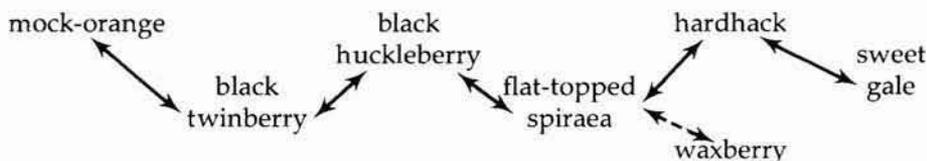
Among the mid-range groupings themselves are several examples of dual membership of individual types of plants, not just inclusion in two hierarchically related mid-range groupings but joint membership in two otherwise mutually exclusive taxa. Western larch in Thompson (this tree does not grow in Lillooet territory) is at once classed as a “needle-bearing tree” and a “deciduous tree,” just as it is in English folk taxonomy. It is known as an anomaly; AY once commented, “The one [needled tree] that’s by itself is [larch] . . . it has no relations . . . because she sheds her pins. No other trees [i.e., “(typical coniferous) tree”] does that.” Similarly, in both languages, oyster mushroom, a gilled species which commonly grows in tiers on cottonwood trunks, is considered both an “edible mushroom” and a “tree fungus.” In Thompson, water-hemlock is classed both as a “swamp parsnip” (and is in fact the “boss” of this class) and a “poisonous plant.” Orange honeysuckle is both a “ground-creeper” and a “hummingbird flower,” and burdock, an introduced species, is classed both as a “cow-parsnip relative” and a “burr-fruited plant.” Balsamroot is the “boss” of a group of look-alike flowers, “balsamroot and relatives,” but is also classed together with chocolate-tips on the basis of the morphological similarity of their edible taproots and the similar harvesting and cooking techniques used for them.

Although these relationships are often represented by synonymous names for such species as orange honeysuckle and burdock, one cannot always discern the nature of a perceived taxonomic relationship from a name. Just as few people would consider “skunk-cabbage” in English folk taxonomy to be “a kind of” cabbage, so Thompson people would not consider bracken and other lacy ferns, which are sometimes called “red-cedar-boughs” to be “a kind of” red-cedar. The affiliation between “skunk-cabbage” and “cabbage,” and between “lacy ferns” and “red-cedar” is real, but is not one of inclusion. Rather, a semantic relationship of “like cabbage,” “like a skunk,” or “like red-cedar” is implied. One must

use a combination of questions to native speakers such as, "Is X a kind of Y?" to determine whether a hierarchical relationship or some other type association is implied by the nomenclature. Linguistic analysis is nevertheless a useful tool because it may identify the existence of a relationship, without necessarily specifying its character.

Plants within a given association or complex are not always considered to be related to the same degree. Red huckleberry is included in the Thompson class of "bush-size huckleberry relatives," but is not considered by AY to be as closely related as the other members: "Those [red huckleberries] are related to [oval-leaved and Alaska blueberries] . . . but just the same, it's really a lonely bush, that. You can't class it with [high-bush cranberry] either, because [that's] a different thing. It's more of a big bush. So red huckleberry is by itself." Within the class of "pines," lodgepole pine is said to be more closely related to ponderosa than it is to white pine, and white pine more closely related to ponderosa than to lodgepole pine. Whitebark pine is perceptually separated slightly from the other three.<sup>15</sup>

There are also plants which are regarded as "links" between two different taxa, neither of which is seen to be related to the other. Hence, B is related to A, and also to C, but A and C are unrelated, except through B. There are several examples of these "linking plants," most provided by AY. Commenting on black twinberry, AY said, "She's related to the [black huckleberry] and she's also related to the [mock-orange]. It [mock-orange] doesn't have any berries, but the stick looks alike and it's used the same way . . . [as medicine for bleeding hemorrhoids]." Flat-topped spiraea is also perceived to be related to black huckleberry and is called "little huckleberry plant" in both languages. However, AY also believes it to be a relative of hardhack, which she calls "monkeybush." Hardhack, she maintains, is related to sweet gale. Neither is seen to be related to huckleberry, and sweet gale is not related to flat-topped spiraea. (Flat-topped spiraea is also seen to be "similar to" but "not really related to" waxberry, which is a bush that "stands by itself.")<sup>16</sup> Schematically, this complex can be shown as follows:



A similar case exists for common twistedstalk, which "stands between" (AY's words) false Solomon's-seal and Indian-hellebore. It can be called with *kə́lwet* ("generic" for false Solomon's-seal and its relatives), or *s/núk<sup>w</sup>eʔ-s e kə́lwet* ('friend/relative of false Solomon's-seal'), or *s/núk<sup>w</sup>eʔ-s e q<sup>w</sup>n-étp* ('friend/relative of Indian-hellebore'). If the last name is used, Indian-hellebore can be referred to as *x<sup>ʔ</sup>-úymx<sup>w</sup> pet q<sup>w</sup>n-étp* ('upland *q<sup>w</sup>n-étp*'), and twistedstalk can be placed in binary opposition to it as *zecín pet q<sup>w</sup>n-étp* ('lowland *q<sup>w</sup>n-étp*'). Similarly, Indian-plum is said to "stand between" saskatoon and "cherries," and bog blueberry between kinnikinnick and other "low-growing blueberry relatives" (AY).

## DISCUSSION

The various criteria perceived in this study for delineating mid-range folk groupings are similar to those demarcating the general taxa of Thompson and Lillooet I reported earlier (Turner 1987). In both cases, they represent a basic discrepancy of views on the nature of folk taxa amongst various researchers. Berlin and his colleagues strongly believe that ". . . there universally exist in all phytotaxonomic systems a basic, fundamental hierarchic organization of taxa based on overall habit of growth or gross morphology" (pers. comm., letter from B. Berlin, September 1973). They would not consider some of the various "life-form" level and mid-range groupings described in Turner (1987) and in the present report, nor some of those described in Turner (1974) for Haida, Bella Coola and Lillooet, as true taxonomic categories. Any taxa based on utilitarian, rather than strictly morphological, criteria they would refer to as "quasi-taxonomic" categories that should be treated separately and not as part of the basic taxonomy. Hence, they would not recognize the "life-form" level categories, "berry/fruit," or "edible roots and underground parts" as being equivalent to "tree," "bush," "grass," and other categories based on gross morphological characters. Nor would they acknowledge as true taxa such mid-range categories in Thompson as "inedible mushrooms," "potatoes," "onions," "green vegetables," "poisonous plants," "hummingbird flowers," "rash-causing plants," "medicinal plants," "nuts," "burr-fruited plants," "spiny (low) plants," and "thorny (large) bushes or trees," because all of these are defined, at first sight, by single features.

Such classes could indeed be perceived as "special purpose" categories, as opposed to "general purpose" categories directly underlaid by discontinuities in nature (cf. Hunn 1977; Brown 1984). However, on close examination, most of these categories do have gross morphological similarities that are inextricably intertwined with their utilitarian or other special purpose attributes. For example, in the case of "spiny (low) plants" in Thompson and "thorny or prickly plants" in Lillooet, as with similar categories in Nitinaht, Bella Coola and Haida, shared morphological features (bushy, medium height, often woody and armed with spines or prickles) are superimposed with cultural significance in a way that might not be immediately obvious. Almost all of the members in these cultures are associated with protection from evil spirits, sickness, death, ghosts and malevolent people (cf. Turner 1974, 1982; Turner *et al.* 1983).

From my observations, these non-conforming classes are perceived by native people in the same way, at the same time, and in conjunction with "real" intermediate taxa (*sensu* Berlin; i.e. those based on the perception of overall morphological similarities among a set of folk generic taxa). To regard them as "not belonging" to a "real" folk taxonomic system would result, in my opinion, in an artifact of the researcher's creation (cf. Hunn 1982). If we are trying to understand the complex organizational strategies used by peoples belonging to a particular cultural group, we should be considering *all* the puzzle pieces, not just those that fit into a structure we can readily identify with.

As pointed out earlier (Turner 1987), the closely ingrained nature of "special purpose" and "general purpose" categories is illustrated in Haida by the term *xil*, meaning simultaneously 'leaf' and 'medicine.' Incorporated into many plant

names in Haida, it is also a "life-form" level term for leafy, herbaceous plants. A similar, though somewhat more obscure, situation can be seen for a mid-range grouping in Thompson and Lillooet. The Thompson term, *káłwet*, is both a basic, "generic" level name for false Solomon's-seal and a mid-range name for a class of "false Solomon's-seal and relatives." AY and other Thompson speakers know the plant as "having a root . . . but counted as medicine . . . *stuyt-úyínx<sup>w</sup>* ('ground-growth')." The Thompson term *mlá-mn* and Fraser River Lillooet *mlomn* both mean 'medicine.'<sup>17</sup> However, in the Pemberton Lillooet dialect, the general name for medicine is *káłwat*, a cognate form of the Thompson name for false Solomon's-seal. Incidentally, the Lillooet name for this plant is completely different from and unrelated to the term for 'medicine.' The plant was used as a good luck charm, especially in fishing, but was apparently not as important medicinally as it was in the Thompson area. The *káłwet* - *káłwat* semantic shift is significant because it is another illustration of a close cognitive relationship between a plant used for medicine, on the one hand, and a general class of medicinal plants on the other. Where does one draw the line between the taxonomic and utilitarian features of this plant, given the apparent evolution of the Pemberton Lillooet term for "medicine" from the folk taxon name?

Even with the "general purpose" mid-range groupings, as has been shown, there are examples of overlapping and dual membership in more general classes depending on cultural context, growth stage, or botanical features. This is contrary to the mutually exclusive, hierarchically arranged folk taxa of Berlin and his colleagues. Hunn (1976) argued that strict taxonomic inclusion would be expected to be the exception rather than the rule in a classification based on diverse criteria. The data presented here conform to his theoretical expectation in this regard.

Many of the mid-range groupings of the Thompson and Lillooet identified here, like a number of the general plant categories I described previously (Turner 1987), contain perceptually distinct members which are nevertheless unnamed at a more basic level. Sometimes, the entire membership of a mid-range taxon is unnamed (e.g. "ground mosses and lichens" in Thompson), or only one or two prominent members are named at a more basic, restricted level (e.g. "tree mosses and lichens" in Thompson, where black tree lichen and tree hair are named, but the others are not)<sup>18</sup>. "Inedible mushrooms," "swamp grasses," and "water plants" are similar types of classes, where only one or two species are named even though many kinds are distinguished. In virtually all of these cases there is a positive correspondence between cultural significance of a plant and naming at a basic, "generic" level.<sup>19</sup>

The features of mid-range plant groupings described for Thompson and Lillooet are similar to those of other native groups of northwestern North America. Mid-range groupings of Nuxalk (Bella Coola), Haida, and Nitinaht (Ditidaht) and Hesquiat (both Nuu-chah-nulth, or Nootkan), for example, seem to exhibit the same type of mixing of "single purpose" and "general purpose" categories, overlapping and cross-referencing of classes, and non-naming of group members that are not culturally significant.

In terms of historical development, Thompson and Lillooet mid-range groupings may well, in most cases, be among the last types to develop in a language,

as suggested by Berlin (1972; Berlin *et al.*, 1973). However, some may be more fundamental and older than the "generic" level categories they encompass at present. This would be particularly true for the classes that do not contain named members even when many "kinds" are recognized by native speakers. Another class that seems both widespread and basic and may well have developed early in the evolution of folk plant taxonomies is the "spiny and prickly plants" category. Even my young daughter, who at 18 months was barely talking at all, developed her own class of "spiny and prickly plants," which she called "ow," an obviously functional name relating to pain-avoidance. In her universe, "ow" included thistles, blackberries, roses and cactus, each of which she recognized as different; thistles have seed fluff to blow, blackberries have fruit to eat, and roses have flowers to smell. She recognized "ow" members both growing and illustrated in books. As an interesting parallel, in recent ethnobotanical work on Chilcotin, I was told, quite spontaneously, by a native speaker looking at prickly-pear cactus on the ground: "That is in the *kwes* ['spines'] family." Other plants she named as belonging to this "family" were: wild rose, thistles, and black hawthorn.

Native people I have worked with have no problems with the heterogeneous means they have developed for classifying the plant kingdom. Anomalies and overlapping of classes are accepted as a matter of course (AY). In their discussions people jump readily and effortlessly from one level of generality to another, using polysemous terminology, synonymous names, drawing multi-dimensional linkages among plants, developing new taxa and expanding and adjusting existing taxa to fit new situations. The introduction of new plants and plant products has resulted in obvious shifts in native folk taxonomies. This form of acculturation is unfortunate, but the changes can be regarded as evolutionary developments, and from them can be learned what the nature of past changes and developments in folk classification systems would have been like.

In his discussion on utilitarian/adaptationist perspectives in folk biological classification, Hays (1982, p. 93) summarizes his views, which seem to fit well the multi-faceted nature of the Thompson and Lillooet mid-range groupings I have described: "My own belief is that we will ultimately understand folk classification systems as products of a number of complex, interacting factors: biological discontinuities in nature, chance historical events, 'utilitarian' human concerns, human cultural concerns in a broader sense, intellectual curiosity, and constraints deriving from the nature of human perception and cognition." Morris (1984), too, states that ". . . it is important to recognize that functional criteria are intrinsically linked to taxonomic ordering," and stresses that functional classes are an integral part of folk biological classification, and Hunn (1982) points out that even the "classic" Tzeltal life-forms are not defined without regard for utilitarian factors.

## SUMMARY AND CONCLUSIONS

In Thompson and Lillooet Interior Salish folk classification, mid-range plant groupings, more inclusive and less basic than "generic" level folk taxa and more restricted than general classes at the "life-form" level, are common and varied.

In all, 79 of these groupings have been inventoried for Thompson and 38 for Lillooet. There are undoubtedly many more yet to be described. They are categories of convenience, established probably in many cases quite spontaneously, and based on observed similarities of many different types and dimensions. Many of the groupings exhibit similar traits to the intermediate folk taxa described by Berlin and his colleagues, in level of inclusiveness, in being delineated largely by overall morphological similarities and, sometimes, in being unnamed, or "covert." The groupings are quite variable, even amongst individual speakers within the groups and do not seem to have as high a level of salience or usage as either the general "life-form" level categories (cf. Turner 1987) or basic "generic" level categories. Many exhibit features (i.e., incorporation of English nomenclature and/or introduced or cultivated members) indicating recent change or expansion following European contact and the collateral introduction of new plants and plant products.

However, like some Thompson and Lillooet general, "life-form" level categories (cf. Turner 1987), many of the mid-range groupings in these languages differ in significant ways from the intermediate taxa described by Berlin, Breedlove and Raven in their folk taxonomic model (cf. Berlin *et al.* 1973). The majority are named, although often these names are polysemous with the "generic" level name for the most salient member or are "binomial" terms with a "life-form" level name as head. Some are defined mainly, but not usually exclusively, by utilitarian rather than morphological criteria. Many "overlap," both among each other and within the more inclusive "life-form" level classes which contain their members. Many contain recognized but unnamed members, and this lack of "generic" level names is usually correlated with low cultural significance of the plants involved. These characteristics are generally similar to those of mid-range groupings described for other northwestern North American native languages (Turner 1974; Turner and Efrat 1982; Turner *et al.* 1983), and follow a pattern similar to more general "life-form" level categories in Thompson and Lillooet (Turner 1987).

#### ACKNOWLEDGEMENTS

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#### NOTES

<sup>1</sup>In previous writings (cf. Turner 1974), I have referred to these groupings using the term, "intermediate," as defined by Berlin and his colleagues. However, as has been pointed out by Hunn (pers. comm. 1988), Brown (pers. comm. 1987) and Palmer (pers. comm. 1988), it is confusing and inaccurate to use this term for the mid-range groupings described here.

<sup>2</sup>Brown (1987), who does not recognize many bona fide intermediate categories, has proposed a new ethnobiological rank, the folk subgenus. His suggested scheme would render at least some of the mid-range groupings categories here as folk generics, which have expanded in reference to incorporate two or more "folk subgenera."

<sup>3</sup>Scientific names for plant species mentioned are given in Appendix I.

<sup>4</sup>There is a similar "prickly or thorny plants" category in Sahaptin, with thistles as the "type." Derivation of the term, from restricted to general or vice versa, is also unclear (E. Hunn, pers. comm. 1987).

<sup>5</sup>Usual questions when discussing a particular plant specimen were: "Does this plant [X] have any relatives?" and "Are there different kinds of X?" These questions invariably lead to a positive or negative response, with examples and descriptions: "Yes, X is close to Y because . . .," or "X stands between Y and Z." and "There is another kind [of X] with white flowers [for example, instead of yellow] . . ." This type of questioning is tedious and can be boring for the native consultant. It has to be done carefully and over an extended period in order to maintain interest and prevent fatigue.

<sup>6</sup>Van Eijk and Thompson are both well versed in culturally oriented elicitation techniques, and hence their interpretations of folk categories based on linguistic analyses and discussions with Thompson and Lillooet speakers are highly relevant.

<sup>7</sup>Note that the use of single quotation marks for native categories denotes a literal translation of a native term, whereas double quotations are used when an English approximation or interpretation is given, or if there is no original native equivalent.

<sup>8</sup>E. Hunn (pers. comm. 1987) argues that these groupings of "relatives of X" do not necessarily constitute a taxon despite the common linguistic designation, as they have in common primarily their separate linkages to the "boss". He would call such a cluster, at best, a complex or chain. Still, in most cases there is a perceived morphological similarity (e.g., low growing; small, leathery, elongated or obovate evergreen leaves in the "kinnikinnick and relatives" group) that links these plants together in a perceptual category.

<sup>9</sup>The origin of the name "red willow" is unknown, and may be post-contact, since many rural non-native people also use it. Hence, the inclusion of red-osier dogwood within the "willow" taxon may be a recent concept. Hunn (pers. comm. 1988) points out that in Sahaptin, red-osier dogwood is not regarded as "willow," although the folk English "red willow" is applied for this plant.

<sup>10</sup>These criteria are sometimes more inferred than specified in so many words by native consultants, and in the case of the botanical relationships (in a scientific sense) referred to in Criteria numbers 1, 2, 4a, and 4b, these are superimposed by the researcher. One might argue that a botanist's bias is inevitable in such a scheme, but every effort was made in this study override personal prejudices and report groupings as perceived and described by native Thompson and Lillooet speakers.

<sup>11</sup>The "life-form" names for "mushroom," in Lillooet (Pemberton dialect) and Thompson (Lower dialect), (*s-ǰəm's* and */ǰámēs* respectively, are in turn derived through expansion of reference of the "generic" level term for the most salient type of mushroom in the lower dialect regions of both languages, the pine mushroom.

<sup>12</sup>In Sahaptin, the difference between a plant which is classed as a "flower" and any flowering plant, is indicated by statements translating, "It is a flower" versus, "It *has* a flower" (E. Hunn, pers. comm. 1987).

<sup>13</sup>This situation is also true in some other Northwestern languages. In Hesquiat Nootka, for example, a salmonberry plant can be called either *maš-mapt* ('salmonberry-shoots-plant') or *qawaš-mapt* ('salmonberry-fruit-plant'), depending on the context (Turner and Efrat 1982).

<sup>14</sup>Hunn (1976) described precisely this type of situation.

<sup>15</sup>This situation fits well the model based on *degrees* of similarity and difference as described by Hunn (1976).

<sup>16</sup>Hunn (1977) describes exactly this "chaining" situation in Tzeltal folk zoology, and first analysed this phenomenon in 1973 in a working paper on Gull Classification. Hays (1974) also notes "chaining" in Ndumba plant classification.

<sup>17</sup>Thompson *mlā-mn* and Lillooet *mlomn* are related to Shuswap "*melōmn*" and Okanagan-Colville "*merimstn*," also meaning "any medicine" (Palmer 1975; Turner, Bouchard and Kennedy, 1980). Apparently, at some stage of Interior Salish language development, the name(s) for subalpine fir developed from the general name(s) for "medicine."

<sup>18</sup>Some might argue "ground mosses and lichens," having no named members, should be considered a folk generic. Perceptually, however, native people view it as the same type of category as "tree mosses and lichens" which does contain named members, and place it in opposition to the latter grouping.

<sup>19</sup>Hunn (pers. comm. 1988) remarked upon the similarity of these cases to what he described (1977) in Tzeltal folk zoology, e.g. "butterfly," in which a heterogenous folk generic is divided in a rather ad hoc fashion by simple criteria. Hunn suggested treating these monotypic divisions of the generic as "varietals" directly included in generics. The case cited here for different types of mosses (see also Table 1, Note 3) might be construed as a "life-form" with directly included "varietal" taxa. In this interpretation, Hunn suggests, a "varietal" taxon is not simply a first order subdivision of a folk specific but rather a type of taxonomic division with definitive psychological properties.

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## APPENDIX 1. Scientific names of plant species mentioned in this paper (in alphabetical order of English common names)

- alder, mountain (*Alnus crispa*)  
alder, red (*Alnus rubra*)  
algae, green (*Spirogyra* spp. and other species)  
almond (*Prunus dulcis*)  
alumroot, cylindrical (*Heuchera cylindrica*)  
alumroot, small-flowered (*Heuchera micrantha*)  
anemone, Pacific (*Anemone multifida*)  
arnica (*Arnica* spp.)  
avalanche lily, yellow (*Erythronium grandiflorum*)  
avens, large-leaved (*Geum macrophyllum*)  
balsamroot (*Balsamorhiza sagittata*)  
baneberry (*Actaea rubra*)  
bedstraw (*Galium triflorum*, *G. aparine*)  
birch (*Betula papyrifera*)  
bitterroot (*Lewisia rediviva*)  
bitterroot, Columbia (*Lewisia columbiana*)  
bitterroot, dwarf (*Lewisia pygmaea*)  
blackberries (*Rubus* spp.)  
blackberry, Himalayan (*Rubus procerus*)  
blackberry, trailing wild (*Rubus ursinus*)  
blackcap (*Rubus leucodermis*)  
blueberry, Alaska (*Vaccinium alaskaense*)  
blueberry, bog (*Vaccinium uliginosum*)  
blueberry, Cascade (*Vaccinium deliciosum*)  
blueberry, commercial (*Vaccinium* spp.)  
blueberry, dwarf mountain (*Vaccinium caespitosum*)  
blueberry, oval-leaved (*Vaccinium ovalifolium*)  
blueberry, velvet-leaved (*Vaccinium myrtilloides*)  
bolete, Lake's (mushroom) (*Suillus lakei*)  
bracken fern (*Pteridium aquilinum*)  
broomrape (*Orobanche fasciculata*)  
brown-eyed Susan (*Gaillardia aristata*)  
buckbrush (*Ceanothus sanguineus*)  
bugleweed (*Lycopus uniflorus*)  
bunchberry (*Cornus canadensis*)  
burdock (*Arctium minus*)  
buttercups (*Ranunculus glaberrimus*, *R. repens*, *R. sceleratus* and other *Ranunculus* spp.)

APPENDIX 1. Scientific names of plant species mentioned in this paper (in alphabetical order of English common names). (continued)

- camas, death (*Zigadenus venenosus*)  
campanulas (*Campanula rotundifolia*, *C. media*)  
carrot, domesticated (*Daucus carota*)  
cascara (*Rhamnus purshiana*)  
cashew (*Anacardium occidentale*)  
cat-tail (*Typha latifolia*)  
cedar, western red- (*Thuja plicata*)  
cedar, yellow- (*Chamaecyparis nootkatensis*)  
celery, domesticated (*Apium graveolens*)  
cetraria (lichen) (*Cetraria* spp. and related spp.)  
chanterelle (*Cantharellus ?cibarius*)  
cherry, bitter (*Prunus emarginata*)  
cherry, choke (*Prunus virginiana*)  
cherry, domesticated (*Prunus avium*, *P. cerasus*)  
chocolate lily (*Fritillaria lanceolata*)  
chocolate-tips (*Lomatium dissectum*)  
cinquefoils (*Potenilla gracilis*, *P. glandulosa*, *P. anserina*)  
clematis, white (*Clematis ligusticifolia*)  
clovers (*Trifolium pratense*, *T. repens*, and other *Trifolium* spp.)  
cluster lily (*Triteleia hyacinthina*)  
collomia (*Collomia linearis*)  
columbine, red (*Aquilegia formosa*)  
cottonwood, black (*Populus balsamifera* spp. *trichocarpa*)  
"cottonwood" mushroom (*Tricholoma populinum*)  
cow-parsnip (*Heracleum lanatum*)  
crabapple, Pacific (*Malus fusca*)  
cranberry, highbush (*Viburnum edule*)  
crowberry (*Empetrum nigrum*)  
currant, domesticated black (*Ribes nigrum*)  
currant, domesticated red (*Ribes rubrum*)  
currant, northern black (*Ribes hudsonianum*)  
currant, red-flowering (*Ribes sanguineum*)  
currant, squaw (*Ribes cereum*)  
currant, stink (*Ribes bracteosum*)  
currant, trailing (*Ribes laxiflorum*)  
"cut-grass" (*Scirpus microcarpus*)  
devil's-club (*Oplopanax horridus*)  
dogbane, spreading (*Apocynum androsaemifolium*)

## APPENDIX 1. Scientific names of plant species mentioned in this paper (in alphabetical order of English common names). (continued)

- dogwood, flowering (*Cornus nuttallii*)  
dogwood, red-osier (*Cornus stolonifera*; syn. *C. sericea*)  
Douglas-fir (*Pseudotsuga menziesii*)  
Douglas-fir, coastal (*Pseudotsuga menziesii* var. *menziesii*)  
Douglas-fir, Interior (*Pseudotsuga menziesii* var. *glauca*)  
elderberry, blue (*Sambucus cerulea*)  
elderberry, red (*Sambucus racemosa*)  
evening-primrose (*Oenothera perennis*)  
fairybells (*Disporum* spp.)  
false azalea (*Menziesia ferruginea*)  
false box (*Paxistima myrsinites*; also spelled *Pachystima*)  
false Solomon's-seal (see Solomon's-seal, false)  
fawn lily, white (*Erythronium oregonum*)  
fern, bracken (see bracken)  
fern, deer (*Blechnum spicant*)  
fern, lady (*Athyrium filix-femina*)  
fern, oak (*Gymnocarpium dryopteris*)  
fern, spiny wood (*Dryopteris assimilis* and related spp.)  
fern, sword (*Polystichum munitum*)  
fir, amabilis (*Abies amabilis*)  
fir, "balsam" (*Abies* spp.)  
fir, grand (*Abies grandis*)  
fir, subalpine (*Abies lasiocarpa*)  
firs, true (*Abies* spp.)  
fireweed (*Epilobium angustifolium*)  
foamflower (*Tiarella unifoliata*)  
forget-me-not (*Myosotis laxa*)  
fungi, bracket or shelf (*Polyporus* spp., *Fomes* spp., *Ganoderma* spp.)  
fungi, coral (*Clavaria* spp. and related spp.)  
goat's-beard (*Aruncus dioicus*)  
goldenrods (*Solidago canadensis*, *S. spathulata*)  
gooseberry, coastal (*Ribes divaricatum*)  
gooseberry, domesticated (*Ribes uva-crispa*)  
gooseberry, interior (*Ribes irriguum*, *R. inerme*)  
grouseberry (*Vaccinium scoparium*)  
hackelia (*Hackelia* ?*diffusa*)  
hair-moss (*Polytrichum juniperinum* and related spp.)  
hardhack (*Spiraea douglasii*)

## APPENDIX 1. Scientific names of plant species mentioned in this paper (in alphabetical order of English common names). (continued)

- hawthorn, black (*Crataegus douglasii*)  
hazelnut (*Corylus cornuta*)  
heather, red mountain (*Phyllodoce empetrifomis*)  
heather, white mountain (*Cassiope mertensiana*)  
hemlock, mountain (*Tsuga mertensiana*)  
hemlock, western (*Tsuga heterophylla*)  
highbush cranberry (*Viburnum edule*)  
holly (*Ilex aquifolium*)  
honeysuckle, orange (*Lonicera ciliosa*)  
horsetail, common (*Equisetum arvense*)  
horsetail, giant (*Equisetum telmateia*)  
horsetails (*Equisetum* spp.)  
huckleberry, black (*Vaccinium membranaceum*)  
huckleberry, red (*Vaccinium parvifolium*)  
Indian-hellebore (*Veratrum viride*)  
Indian-hemp (*Apocynum cannabinum*)  
Indian-pipe (*Monotropa uniflora*)  
Indian-plum (*Oemleria cerasiformis*)  
"Indian celery" (*Lomatium nudicaule*)  
Indian paint fungus (*Echinodontium tinctorium*)  
Indian paintbrush (*Castilleja* spp.)  
inky cap (mushrooms) (*Coprinus* spp.)  
juniper, common (*Juniperus communis*)  
juniper, Rocky Mountain (*Juniperus scopulorum*)  
kinnikinnick (*Arctostaphylos uva-ursi*)  
knotweed, water (*Polygonum amphibium*)  
Labrador-tea (*Ledum groenlandicum*; *L. glandulosum* also included)  
lactarius (mushroom) (*Lactarius ?resimus*, *L. ?torminosus* and related spp.)  
larch, western (*Larix occidentalis*)  
lichen, black tree (*Bryoria fremontii*)  
lichen, dogtooth (*Peltigera canina* and related spp.)  
lichen, lung (*Lobaria pulmonaria*)  
lichen, reindeer (*Cladina* spp.)  
lichen, wolf (*Letharia vulpina*)  
lily-of-the-valley, wild (*Maianthemum dilatatum*)  
locust (*Robinia pseudoacacia*)  
loganberry (*Rubus ursinus* var. *loganobaccus*)  
louseworts (*Pedicularis bracteosa*, *P. racemosa*)

## APPENDIX 1. Scientific names of plant species mentioned in this paper (in alphabetical order of English common names). (continued)

- maple, broadleaved (*Acer macrophyllum*)  
maple, Rocky Mountain (*Acer glabrum*)  
maple, vine (*Acer circinatum*)  
mariposa lily (*Calochortus macrocarpus*)  
maytree (*Crataegus oxyacantha*)  
milk-vetches (*Astragalus miser* and related spp.)  
milkweed (*Asclepias speciosa*)  
miner's-lettuce (*Claytonia perfoliata*)  
miner's-lettuce, Siberian (*Claytonia sibirica*)  
missionbells (*Fritillaria camschatcensis*)  
mock-orange (*Philadelphus lewisii*)  
monkeyflower, yellow (*Mimulus guttatus*)  
moss, stolon (*Isoetecium stoloniferum*)  
mountain bells (*Stenanthium occidentale*)  
mountain-ash (*Sorbus sitchensis*)  
mushrooms (see under individual types)  
mushrooms, commercial (*Agaricus campestris*)  
ninebark (*Physocarpus capitatus*)  
oceanspray (*Holodiscus discolor*)  
onion, domesticated (*Allium cepa*)  
onion, Hooker's (*Allium acuminatum*)  
onion, nodding wild (*Allium cernuum*)  
orchid, bog (*Habenaria dilatata*)  
orchid, rein (*Habenaria stricta*)  
Oregon-grape, common (*Mahonia nervosa*)  
Oregon-grape, tall (*Mahonia aquifolium*)  
oyster mushroom (*Pleurotus ostreatus*)  
parmelia (lichen) (*Parmelia* spp. and related spp.)  
parsnip, domesticated (*Pastinaca sativa*)  
peanut (*Arachis hypogaea*)  
peas, garden (or field) (*Pisum sativum*)  
peas, wild (*Lathyrus nevadensis*, *L. ochroleucus*, *L. latifolius*)  
penstemon, shrubby (*Penstemon fruticosus*)  
penstemons (*Penstemon confertus*, *P. procerus*, *P. serrulatus*)  
pine, lodgepole (*Pinus contorta*)  
pine, ponderosa (*Pinus ponderosa*)  
pine, white (*Pinus monticola*)  
pine, whitebark (*Pinus albicaulis*)

## APPENDIX 1. Scientific names of plant species mentioned in this paper (in alphabetical order of English common names). (continued)

- pine mushroom (*Tricholoma magnivelare*, syn. *Armillaria ponderosa*)  
pinesap (*Hypopites monotropa*)  
plantain, broad-leaved (*Plantago major*)  
poison-ivy (*Rhus radicans*)  
pond-lily, yellow (*Nuphar polysepalum*)  
pondweeds (*Potamogeton* spp.)  
potato, domesticated (*Solanum tuberosum*)  
prince's-pine (*Chimaphila umbellata*)  
puffballs, smaller types (*Lycoperdon* spp., *Bovista* spp.)  
puffball, giant (*Calvatia gigantea*)  
pyrolas (*Pyrola* spp.)  
queenscup (*Clintonia uniflora*)  
rabbitbrush (*Chrysothamnus nauseosus*)  
raspberry, garden (*Rubus idaeus*)  
raspberry, trailing (*Rubus pedatus*)  
raspberry, wild (*Rubus idaeus*)  
rattlesnake plantain (*Goodyera oblongifolia*)  
reed canary grass (*Phalaris arundinacea*)  
rhacomitrium (moss) (*Rhacomitrium canescens*)  
rhododendron, pink (*Rhododendron macrophyllum*)  
rhododendron, white-flowered (*Rhododendron albiflorum*)  
rhubarb (*Rheum rhabarbarum*)  
rock tripe (lichen) (*Umbilicaria* spp. and related spp.)  
rose, dwarf wild (*Rosa gymnocarpa*)  
rose, Nootka wild (*Rosa nutkana*)  
rose, swamp wild (*Rosa pisocarpa*)  
roses, wild and domesticated (*Rosa* spp.)  
rowan (*Sorbus aucuparius*)  
rush, round-stem (*Juncus ensifolius*)  
rushes (*Juncus* spp.)  
rushes, scouring (see scouring rushes)  
russula (mushroom) (*Russula* spp.)  
St. George's mushroom (?) (*Tricholoma gambosum*)  
sage, western (*Artemisia ludoviciana*)  
sagebrush, big (*Artemisia tridentata*)  
salal (*Gaultheria shallon*)  
salmonberry (*Rubus spectabilis*)  
saskatoon berry (*Amelanchier alnifolia*)

## APPENDIX 1. Scientific names of plant species mentioned in this paper (in alphabetical order of English common names). (continued)

scouring rushes (*Equisetum hyemale* and related spp.)  
sedges (*Carex* spp.)  
shaggy mane mushroom (*Coprinus comatus*)  
silverberry (*Elaeagnus commutata*)  
silverweed (*Potentilla anserina* spp. *anserina*)  
silverweed, Pacific (*Potentilla anserina* spp. *pacifica*)  
skunk-cabbage (*Lysichitum americanum*)  
"slimy" mushroom (*Hygrophorus* sp.)  
snowball bush (*Viburnum opulus* var.)  
snowbrush (*Ceanothus velutinus*)  
soapberry (*Shepherdia canadensis*)  
Solomon's-seal, false (*Smilacina racemosa*)  
Solomon's-seal, star-flowered (*Smilacina stellata*)  
silverberry (*Elaeagnus commutata*)  
spiraea, flat-topped (*Spiraea betulifolia*)  
spiraea, pyramid (*Spiraea pyramidata*)  
spring beauty (*Claytonia lanceolata*)  
spruce, Engelmann (*Picea engelmannii*)  
spruce, "silver" (unidentified; possibly *P. glauca* X)  
spruce, Sitka (*Picea sitchensis*)  
stickseed (*Lappula redowskii*, *L. echinata*)  
stinging nettle (*Urtica dioica*)  
strawberry, domesticated (*Fragaria* X *ananassa*)  
strawberries, wild (*Fragaria vesca*, *F. virginiana*)  
sunflower (*Helianthus annuus*)  
swamp-laurel (*Kalmia microphylla*)  
sweet cicely (*Osmorhiza chilensis*)  
sweet gale (*Myrica gale*)  
sweet potato (*Ipomoea batatas*)  
sweet-pea (wild) (*Lathyrus latifolius*)  
tarragon, wild (*Artemisia dracunculus*)  
thimbleberry (*Rubus parviflorus*)  
thistles (*Cirsium* spp.)  
tiger lily (*Lilium columbianum*)  
tobacco, commercial (*Nicotiana tabacum*)  
tobacco, wild or native (*Nicotiana attenuata*)  
tree hair (*Alectoria sarmentosa* complex)  
tule (*Scirpus acutus*)

APPENDIX 1. Scientific names of plant species mentioned in this paper (in alphabetical order of English common names). (continued)

twayblade (*Listera cordata*)  
twinberry, black (*Lonicera involucrata*)  
twinflower (*Linnaea borealis*)  
twistedstalk, common (*Streptopus amplexifolius*)  
vetches (*Vicia sativa*, *V. americana* var. *truncata*)  
walnut, English (*Juglans regia*)  
wapato (*Sagittaria latifolia*)  
water-hemlock (*Cicuta douglasii*)  
water-parsnip (*Sium suave*)  
waxberry (*Symphoricarpos albus*)  
"wild carrot" (*Lomatium macrocarpum*)  
willow, Hooker's (*Salix hookeriana*)  
willow, Pacific (*Salix lasiandra*)  
willow, "red" (see dogwood, red-osier)  
willow, sandbar (*Salix exigua*)  
willow, Scouler's (*Salix scouleriana*)  
willow, Sitka (*Salix sitchensis*)  
willowherbs (*Epilobium ciliatum* and related spp.)  
willows (*Salix* spp.)  
wineberry (*Rubus phoenicolasius*)  
witch's butter (fungus) (*Tremella mesenterica*)  
woolly sunflower (*Eriophyllum lanatum*)  
wormwood, field (*Artemisia campestris* spp. *borealis*)  
wormwood, pasture (*Artemisia frigida*)  
yarrow (*Achillea millefolium*)  
yellowbells (*Fritillaria pudica*)  
yew, western (*Taxus brevifolia*)