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Ethnobotany of the Okanagan-Colville Indians of British Columbia and Washington

Nancy J. Turner, Randy Bouchard, Dorothy I. D. Kennedy



Occasional Papers of the
British Columbia Provincial Museum
No. 21

*Ethnobotany of the
Okanagan-Colville Indians
of British Columbia and Washington*

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The medicines described in this publication are not recommended for use, except under the advice of a physician. They were used by the Okanagan-Colville people only under strictly controlled conditions and were administered by those who had the knowledge and experience of many generations behind them. Many of these medicines can cause illness and even death if used improperly; they have been recorded here as part of the heritage of the Okanagan-Colville people, for scientific interest and use in pharmacological research.

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INTRODUCTION

The purpose of this report is to describe as accurately as possible the past and present uses of plants by the Okanagan*- Colville Indian people and to record the Native names for these plants and others recognized with names in the Okanagan-Colville language. This language is probably best rendered by its Native name, "nsilxtsin" ('people's speech or language'), because only this term denotes all the dialects collectively. Okanagan-Colville territory comprises an area of the Southern Interior of British Columbia and the Northern Interior of Washington. Specifically, the territory extends from the upper end of the Okanagan Valley in the north, near Armstrong, and the upper end of the Arrow Lakes area, near Revelstoke, southwest to include the vicinity of Nicola Lake, then south through Princeton to the area where the Methow River meets the Columbia River and including the "Big Bend" area south of the Columbia, and east to include the Arrow Lakes and Slocan Lake. This is an area of approximately 72 500 square kilometres (28,000 square miles), about 70 per cent of which lies in British Columbia and about 30 per cent in Washington (see Figure 1).

Linguistic and Ethnic Affiliations of the Okanagan-Colville Indian People

The Okanagan-Colville language is classified in the Interior Salish division of the Salishan Language Family, and hence is related to the Lillooet, Shuswap, Thompson, Flathead-Kalispel-Spokane (also known as Kalispel), Coeur d'Alene, and Moses-Wenatchee-Chelan (also known as Columbian) languages. Although the total number of Okanagan-Colville people is in the thousands (an estimated 4,200 are members of the Colville Confederated Tribes of Washington and about 2,000 are members of Indian Bands in British Columbia), the actual number of completely fluent speakers of Okanagan-Colville dialects is much less—probably in the neighbourhood of 600—almost all of them elderly or middle-aged (Bouchard and Kennedy 1979).

There is some disagreement among scholars, and among the Indian people themselves, as to the number and geographical extent of Okanagan-Colville dialect divisions. For this study, seven dialect divisions are recognized:

1. *Northern Okanagan*—along the upper Okanagan Lake and Okanagan River drainage system.
2. *Similkameen Okanagan*—along the Similkameen River drainage system.
3. *Southern Okanagan*—along the lower Okanagan River drainage system.
4. *Methow Okanagan*—along the Methow River drainage system; this dialect is apparently very closely inter-related with the Chelan dialect of the Columbian language (Kinkade 1967:193-197).
5. *Sanpoil-Nespelem*—only the Sanpoil subgroup is still in existence. Sanpoil territory traditionally extended along both sides of the Columbia River from Grand Coulee to Rogers Bar and included the Sanpoil River drainage system upriver to Republic. Formerly this territory extended along both sides of the Spokane River from its mouth to about 16 kilometres (ten miles) upriver (today, Spokane Indians are living in this area). According to Ray (1932:13), the Nespelem formerly occupied both sides of the Columbia from Grand Coulee to an area just east of Brewster.
6. *Colville*—formerly along the Colville Valley as far southeast as the area between Addy and Chewelah and along both sides of the Columbia River from near Kettle Falls south to Rogers Bar. The term, Colville, also has a more general meaning to denote all the tribes now living on the Colville Indian Reservation.

*The common American spelling is Okanagan. The authors will use the Canadian spelling, Okanagan, throughout this study.

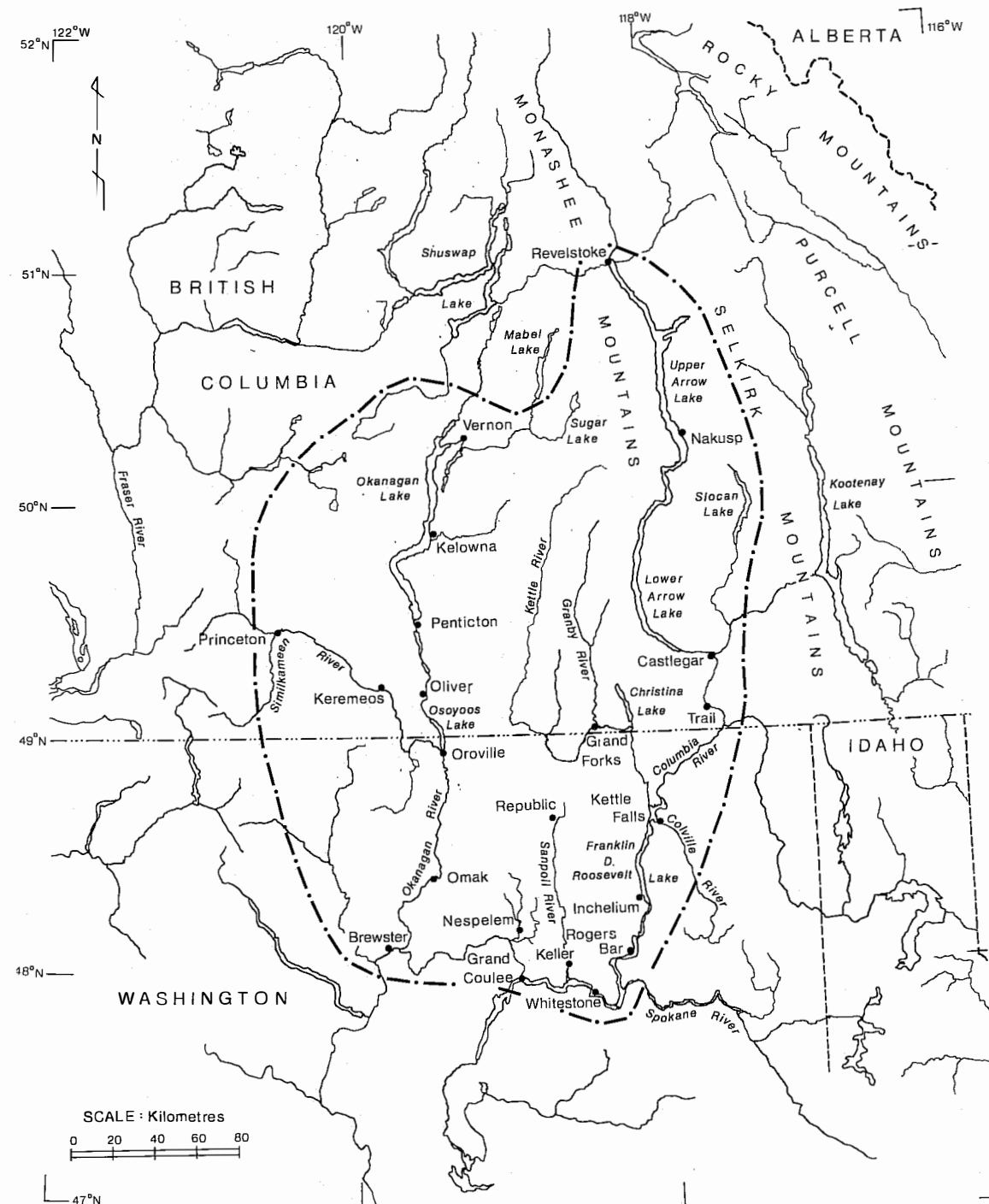


Fig. 1. Okanagan-Colville Territory

7. *Lakes*—along both sides of the Columbia River from near Kettle Falls north to Revelstoke, including the Arrow Lakes and Slokan Lake areas.

The first four of these dialect divisions are regarded by some researchers as forming a single larger dialect known simply as Okanagan, while the last three are considered to form a single larger dialect known simply as Colville (Bouchard and Kennedy 1979). In British Columbia, Indian people refer to the Okanagan-Colville language as Okanagan, whereas in Washington, this same language is most often referred to as Colville.

Most of the plant names and information on plant uses appearing in this report are from the Northern Okanagan and Colville dialect areas. Additional information on the Southern Okanagan area was extracted from Spier (1938), on Sanpoil-Nespelem from Ray (1932), and on Lakes from Elmendorf (1935-36).

The cultural features of the Okanagan-Colville are similar to those of other Interior Salish groups. Together, these groups, and others, form a loosely defined unit known as the Plateau Culture Area, named after the Columbia Plateau region.

Archaeological evidence indicates that approximately 9,000 years ago people were utilizing at least the southeastern area (around Kettle Falls) of what is now known as Okanagan-Colville territory (David Chance, pers. comm.).

The Physical Environment

The territory of the Okanagan-Colville is vast, ranging over more than three degrees in latitude (see Figure 1). As one might expect, the physical diversity of this area is immense, and the great variation in topography and climate has resulted in a high level of vegetational diversity and hence is itself responsible, in large part, for the many different plant species recognized and utilized by the Okanagan-Colville.

The study area includes three general physiographic regions. The southern-most, known commonly as the Columbia Basin (cf. Franklin and Dyrness 1973:29), includes the area from Franklin D. Roosevelt Lake westwards along the Columbia River. It is bordered on the west by the Cascade Mountains and on the east by the Idaho Mountains and extends far into Oregon. The dominant geological feature of this region is a massive basalt layer resulting from numerous and repeated outflowings of lava during the Miocene epoch. Subsequent erosion and deposition has produced a landscape characterized by gently rolling or moderately hilly topography. The Columbia River and its tributaries have cut into the basalt formations, in some places forming steep-sided canyons, or coulees. Elevation ranges from 780 metres (about 2,500 feet) in the west and north to under 300 metres (about 1,000 feet) in the southwest.

The northeastern third of the study area is a mountainous region dominated by the Monashee and Selkirk ranges of the Columbia Mountains (Holland 1964:76-80). These ranges run in a generally north-south direction and are characterized by steep, rugged slopes, composed primarily of sedimentary and metamorphic rock. They show obvious evidence of glaciation. The Arrow Lakes of the Upper Columbia divide the two ranges. In the Monashees, a number of peaks rise to over 2 700 metres (9,000 feet) and many exceed 2 100 metres (7,000 feet), with the height of the peaks being greater in the northern portions of the range. The Selkirks are even more rugged. The elevation of the Arrow Lakes is about 420 metres (1,380 feet).

The remaining portion of the study area, known as the Okanagan Highlands, is part of the Interior Plateau system (cf. Holland 1964:74). It extends from the Coldstream Valley near Vernon in the northwest, to the Spokane River in the southeast, and is bordered by the Thompson Plateau and the Monashee mountains. It is characterized by rounded mountains and ridges and gentle upland slopes averaging some 1 200 metres (about 4,000 feet) elevation, but with a few scattered peaks (e.g. Big White, Baldy and Apex mountains) reaching an altitude of over 2 100 metres (about 7,000

feet). This area is drained by the Okanagan and Kettle Rivers and their tributaries. Much of it is underlain by gently dipping gneisses which, due to the nature of these rocks, have weathered into gentle, step-like slopes.

Glaciation and, in particular, subsequent erosion and deposition from meltwaters, have been the dominant geomorphic agents in shaping the landscape of the study area. Almost all of the Okanagan-Colville territory, with the exception of a small enclave in the far south, at the western end of Franklin D. Roosevelt Lake, was covered by ice during the last major ice advance, known as the Wisconsin Glaciation. The Fraser ice sheet retreated in the region of the Okanagan River Valley some 9,000 years ago. It left the large deposits of outwash materials, terraces, deltas, and meltwater channels that are characteristic of the area today. Until the colonization of the uplands and valley sides by vegetation, a process that probably took several centuries, high rates of wind and water erosion, and sedimentation, further modified the landscape. Depositions of alluvial fans and deltas (such as those at Penticton, Kelowna and Vernon) were made and silts and sands accumulated along parts of the floors of the river valleys (Kershaw 1978).

Most of the traditional villages of the Okanagan-Colville were, like the modern settlements of this area, located in the valley bottoms, along the major waterways. The upland and montane regions were visited periodically for hunting, root-digging and berry-picking.

The climate of the Okanagan-Colville territory is as variable as the topography and is considerably influenced by physiographic features. The rain-shadow effect of the Cascade Range, immediately west of the area, is striking and drastic along the river valleys and bottomlands of the Okanagan Highlands and in the Columbia Basin. In these areas the climate is arid, with an average annual precipitation of only 25-30 centimetres (10-12 inches), much of it in the form of winter snowfall. The summers are dry and hot and the winters severe. At Omak, in the southern Okanagan Valley, for example, the mean temperature for July, the hottest month, is about 23° C (73° F) and the mean temperature for January, the coldest month, is about -3° C (26° F). In general, precipitation increases, and temperatures decrease, with increasing elevation and increasing latitude (cf. British Columbia Department of Agriculture n.d.; Wernstedt 1972).

As one moves eastwards into the Monashee and Selkirk Ranges, the precipitation levels increase markedly; this area is often referred to as the Interior wet belt. Here, average annual precipitation ranges from about 50 to 170 centimetres (20 to 67 inches). At Fauquier, on Lower Arrow Lake, for example, the average annual precipitation is 57 centimetres (22.6 inches) (British Columbia Department of Agriculture n.d.). The temperatures in the valley areas of this region are generally comparable with or slightly cooler than those of the Okanagan Highlands; of course, in the high mountain areas, the winter climate is particularly severe.

The natural vegetation of the Okanagan-Colville territory is closely inter-related with the physiography and climate of the area. Post-glacial re-vegetation took many centuries. Evidence from pollen studies indicates that the valley sides of the Okanagan were populated by pine, fir, spruce and western hemlock by about 8,900 years ago. Up to about 7,500 years ago, conditions were apparently cooler and moister than they are today in the valley. Lodgepole pine was the major species of upland sites and ponderosa pine dominated the relatively drier valley bottom. A warmer, drier period followed, characterized by a decrease in tree species and corresponding increase in grasses and sagebrush-type vegetation. This period lasted until about 6,600 years ago, around the time when Mt. Mazama in Oregon (at Crater Lake) erupted, depositing a layer of whitish volcanic ash throughout Okanagan-Colville territory. From that time to the present, there has been a series of climatic fluctuations. There have been three relatively moist periods, when birch, alder and hazelnut were dominant arboreal species, each followed (at least in the case of the first two), by a relatively dry period, with a relative increase in the number of pine and spruce. The last 1,500 years constitute the third relatively moist period (Kershaw 1978:37-39).

At present, at least five major natural vegetation zones can be distinguished within the territory of the Okanagan-Colville. Although different systems of vegetation classification prevail on either side of the British Columbia—Washington border (cf. Krajina 1969; Franklin and Dyrness 1973), the vegetation itself is similar and continuous, with the main difference being an increasing area of non-forested steppe vegetation as one travels southwards, and a corresponding decrease in the upland forest vegetation. This is due to the warmer climate and the increase in open flatlands in the Columbia Basin area.

The major zones are summarized as follows (after Krajina 1969:2-41; Franklin and Dyrness 1973:160-233):

1. Steppe Zone — a non-forested zone, mainly in the lowlands of the Columbia Basin in the southernmost portion of Okanagan-Colville territory. It is the driest, warmest zone and is subdivided into meadow-steppe, with a characteristic ground cover of perennial bunch-grasses (e.g. *Agropyron spicatum*, *Festuca idahoensis* and *Poa sandbergii*), and shrub-steppe, with sagebrush cover (mainly of *Artemisia tridentata* in our area). Parts of this zone are also rich in forbs, such as *Lomatium* species, silky lupine (*Lupinus sericeus*) and yarrow (*Achillea millefolium*).
2. Ponderosa Pine Zone — a lowland forested area adjacent to the steppelands, extending along the dry valleys of the Okanagan, Similkameen and lower Kettle rivers; typified by open, park-like stands of ponderosa pine (*Pinus ponderosa*) with some Douglas-fir (*Pseudotsuga menziesii* var. *glauca*), trembling aspen (*Populus tremuloides*), Rocky Mountain juniper (*Juniperus scopulorum*) and lodgepole pine (*Pinus contorta*), interspersed with grasses (e.g. *Agropyron spicatum*, *Stipa comata*, and *Festuca idahoensis*), and some shrub species such as big sagebrush (*Artemisia tridentata*), greasewood (*Purshia tridentata*), waxberry (*Symphoricarpos albus*), flat-topped spiraea (*Spiraea betulifolia*), wild roses (*Rosa woodsii*, *R. nutkana*), mallow ninebark (*Physocarpus malvaceus*), oceanspray (*Holodiscus discolor*), buckbrush (*Ceanothus sanguineus*), saskatoon berry (*Amelanchier alnifolia*), black hawthorn (*Crataegus douglasii*), chokecherry (*Prunus virginiana*) and mock-orange (*Philadelphus lewisii*), most of which are drought-tolerant.
3. Interior Douglas-fir Zone — an upland forested zone found generally in the cooler, moister areas above the Ponderosa Pine Zone, ranging from about 300-1 350 metres (1,000-4,500 feet). Douglas-fir is the dominant forest tree, but also present are ponderosa pine, lodgepole pine, white pine (*Pinus monticola*), grand fir (*Abies grandis*), western larch (*Larix occidentalis*), trembling aspen, black cottonwood (*Populus balsamifera* ssp. *trichocarpa*), Rocky Mountain maple (*Acer glabrum*) and western birch (*Betula occidentalis*). Some of the understory shrubs include false box (*Paxistima myrsinites*), waxberry, flat-topped spiraea, wild roses, mallow ninebark and oceanspray, most of which also occur common in the previous zone. In some areas of the Interior Douglas-fir Zone, the understory is virtually shrub-free, being dominated by such species as pinegrass (*Calamagrostis rubescens*) and arnica (*Arnica latifolia*).
4. Interior Western Hemlock Zone — the forested region in the lower elevations of the Interior wet belt, in Lakes territory. Western hemlock (*Tsuga heterophylla*) is a major forest tree, along with western red cedar (*Thuja plicata*), Douglas-fir, white pine, grand fir, and western larch. Also present are some Engelmann spruce (*Picea engelmannii*), subalpine fir (*Abies lasiocarpa*), ponderosa pine, paper birch (*Betula papyrifera*) and black cottonwood. Common shrubs include false box, black mountain huckleberry (*Vaccinium membranaceum*), and devil's club (*Oplopanax horridum*). A wide variety of shade and moisture-loving herbs, including several fern species, is also found.

5. Subalpine Fir Zone — a montane forest zone occurring at higher elevations throughout the Okanagan Highlands and the Monashee and Selkirk ranges, above about 1 200 metres (4,000 feet). Major forest species are subalpine fir, Engelmann spruce and lodgepole pine. In the lower portion of the zone, Douglas-fir, grand fir, western larch, white pine and Rocky Mountain maple may be conspicuous. Higher in the zone, white-bark pine (*Pinus albicaulis*) and, sometimes, alpine larch (*Larix lyallii*), may be abundant. Some of the prominent shrubs encountered are false box, false azalea (*Menziesia ferruginea*), grouseberry (*Vaccinium scoparium*), saskatoon berry, thimbleberry (*Rubus parviflorus*), flat-topped spiraea, white rhododendron (*Rhododendron albiflorum*), false Labrador tea (*Ledum glandulosum*), creeping juniper (*Juniperus communis*), black mountain huckleberry, and dwarf blueberry (*Vaccinium caespitosum*). Many herbaceous species also occur, including such economically important ones as yellow avalanche lily (*Erythronium grandiflorum*), and spring beauty (*Claytonia lanceolata*).

These zones, which are based primarily on the climax vegetation, are described in detail for Washington by Franklin and Dyrness (1973), and their extensions in British Columbia are readily identifiable under the scheme of biogeoclimatic zones described by Krajina (1969). Within each of these major zones, a number of particular plant associations, characteristic of particular habitat types and successional stages, have been described. For details on these, the reader is referred to the works cited above.

In any given area, the Okanagan-Colville had easy access to at least one, and, more often, two or three of the major vegetation zones, and to numerous habitats (e.g. swamps, meadows, talus slopes, river banks and rocky outcrops) within these zones. The economic potential of a plant in any locality was certainly affected by its availability and abundance. However, the direct dependence on locally available flora was modified somewhat by the development of systems of exchange of plants and plant products, both among the various groups speaking the Okanagan-Colville language and with other Plateau groups, including the Flathead-Kalispel-Spokane, the Moses-Wenatchee-Chelan, the Thompson and the Shuswap. Such plant products as dried saskatoon berries, hazelnuts, bitter-roots, camas bulbs, Indian hemp fibre, and tobacco were popular items of commerce (Teit 1930:253-254).

It is not within the scope of this monograph to discuss the different animal species utilized by the Okanagan-Colville, but the reader can learn more about the mammals of the study area from Cowan and Guiguet's *The Mammals of British Columbia* (1965), and on the bird life from several Handbooks of the British Columbia Provincial Museum and from Cannings (in press). The fresh-water fish are described by Carl, Clemens and Lindsey (1959).

The last 100 years have seen both subtle and dramatic changes to the landscape and vegetation of the study area. Many factors have contributed to these changes, including agriculture, ranching, wildlife control, industry and industrial pollution, hydro-electric developments, road construction, urbanization, and the introduction of exotic plants. The net result has been to change the abundance and distribution of important species used by the Okanagan-Colville, making historical reconstructions of plant availability, key habitats, and original patterns of plant utilization, somewhat speculative.

Most major rivers in the study area have been dammed or modified for irrigation. One of the largest dams is Grand Coulee, on the Columbia, but no less significant are the dams on the Arrow Lakes and Upper Columbia. Many sites of native habitation and plant harvesting were flooded by these and other projects (see Bouchard and Kennedy 1979).

The zones most drastically affected by damming, modern settlement, and agriculture, are the lowland Steppe and Ponderosa Pine zones — two of the most crucial in terms of native habitation and traditional economy. Today, throughout large areas within these zones, little remains of the natural vegetation. The upland and montane forest zones have been extensively logged with

consequent significant changes to the original environment. It is true that fires started by lightning, or set by the Native people themselves for the purpose of encouraging habitats for game or important economic plant species (cf. tiger lily), were fairly common, but certainly the combined effect of modern logging has had a much greater, longer-lasting influence on the native vegetation.

A good illustration of the extent to which modern European settlement has influenced the original Okanagan-Colville economy can be seen in the exceptionally high number of introduced plant species named and recognized by the Okanagan-Colville people.

RESEARCH METHODS

Most of the research for this report consisted of interviews with Indian people conducted during a series of field trips throughout Okanagan-Colville territory from August, 1973, through July, 1979 by Bouchard and Kennedy. One series of interviews was undertaken jointly by Turner, Cox, Bouchard and Kennedy in June, 1974. The following Indian people provided information for this study:

MARTIN LOUIE (ML) (Colville dialect), born in 1906, formerly of Inchelium, Washington, but now living in Penticton, B.C.

SELINA TIMOYAKIN (ST) (Northern Okanagan dialect), born in 1908, of Penticton, B.C.

LARRY PIERRE (LPR) (Northern Okanagan dialect), born in 1925, son of ST, of Penticton, B.C.

HARRY ROBINSON (HR) (Similkameen Okanagan dialect), born in 1900, of Hedley, B.C.

WILLIE ARMSTRONG (WA) (Northern Okanagan dialect), born in 1907, of Penticton, B.C.

LILLIE ARMSTRONG (LA) (Colville dialect), born in 1913, sister of ML and wife of WA, formerly of Inchelium, but now living at Penticton, B.C.

NETTIE FRANCIS (NF) (Sanpoil dialect), born in 1909, of Keller, Washington.

LOUIE PICHETTE (LP) (Colville dialect), born in 1896, of Inchelium, Washington.

CECELIA PICHETTE (CP) (Sanpoil dialect), born in 1910, wife of LP, formerly of Keller, but now living at Inchelium.

ALBERT LOUIE (AL) (Colville dialect), born in 1908, brother of ML and LA, of Rogers Bar, Washington.

SUSAN LOUIE (SL) (Northern Okanagan dialect), born in 1933, wife of AL, formerly of Penticton, but now living at Rogers Bar.

JOE ABEL (JA) (Northern Okanagan dialect), born in 1892 and died in March, 1979, of Vernon, B.C.

Martin Louie and Selina Timoyakin contributed the majority of the information contained in this report. Larry Pierre (assisted by Bouchard) provided the derivations and translations of the Indian terms; these were later verified with Susan Louie.

Interviews involved the use of fresh plant materials wherever possible. Pressed specimens and plant photographs were only used in cases where fresh materials were not available. Many outings were made with informants to search for specific plants they had described, to obtain plant specimens for verifying identifications, and to find plants which had not yet been discussed. Where possible, tape-recordings were made of the interviews to provide a permanent record of the Okanagan-Colville names of plants and details of their uses. Plants collected during the interviews were pressed and dried as voucher specimens. Photographs were taken of plants and activities relating to plant gathering and preparation. Plant identifications were made by Turner.

Research on Okanagan-Colville ethnobotany is continuing and undoubtedly much more information will be collected, but it was felt that the materials acquired to date should be summarized and arranged in a standardized format to make it useful to as many people as possible.

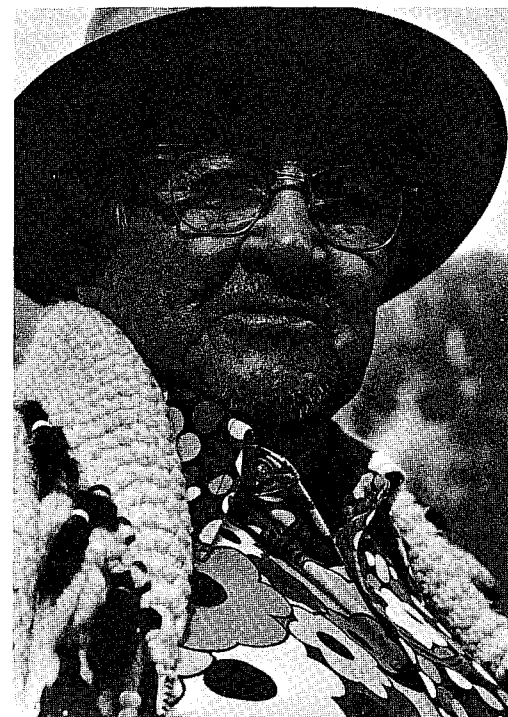


Fig. 2. Martin Louie, 1976—D. I. D. Kennedy



Fig. 3. Selina Timoyakin, 1977—D. I. D. Kennedy

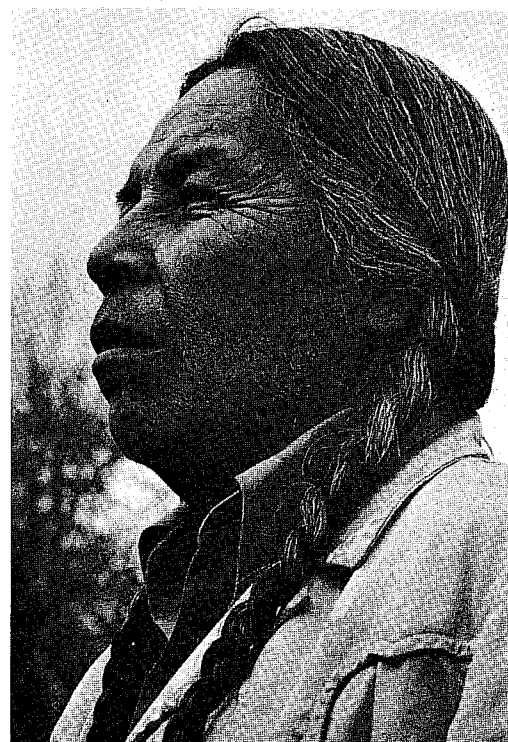


Fig. 4. Larry Pierre, 1977—D. I. D. Kennedy

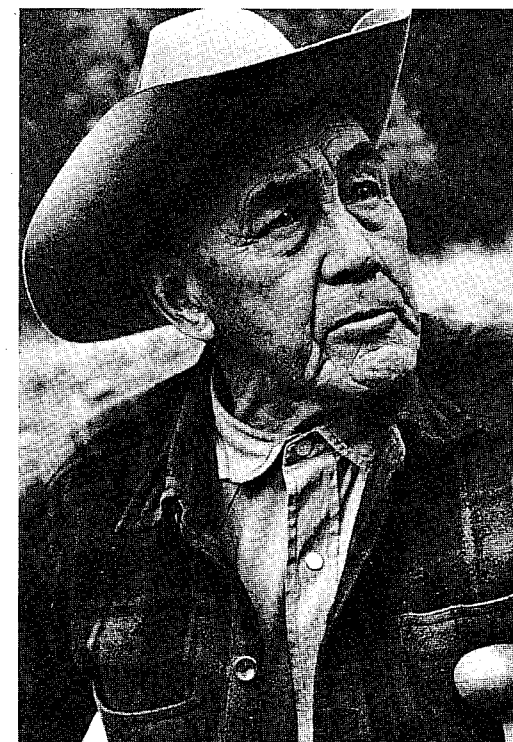


Fig. 5. Harry Robinson, 1975—D. I. D. Kennedy

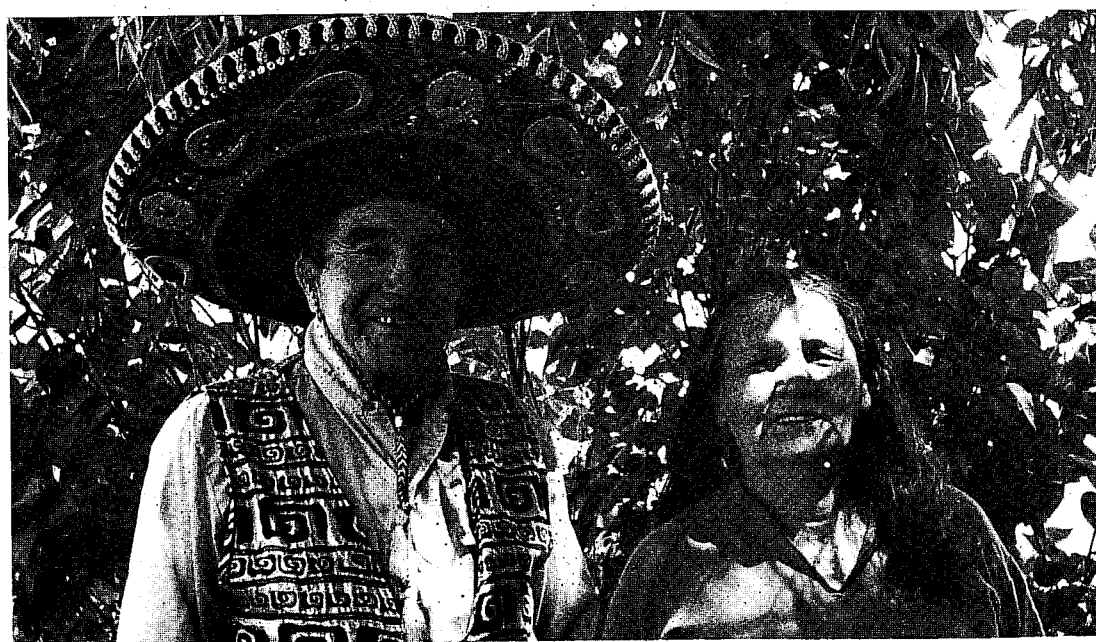


Fig. 6. Willie and Lillie Armstrong, 1976—D. I. D. Kennedy



Fig. 7. Nettie Francis, 1979—D. I. D. Kennedy

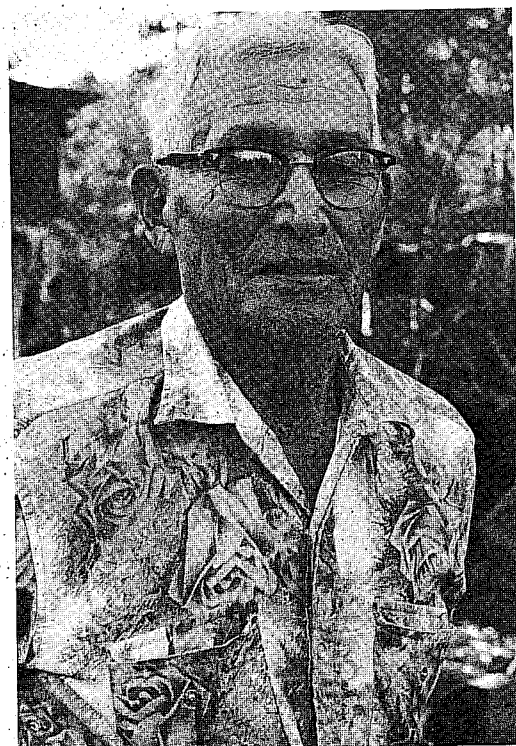


Fig. 8. Louie Pichette, 1978—D. I. D. Kennedy



Fig. 9. Cecelia Pichette, 1979—D. I. D. Kennedy



Fig. 10. Susan Louie, 1978—D. I. D. Kennedy

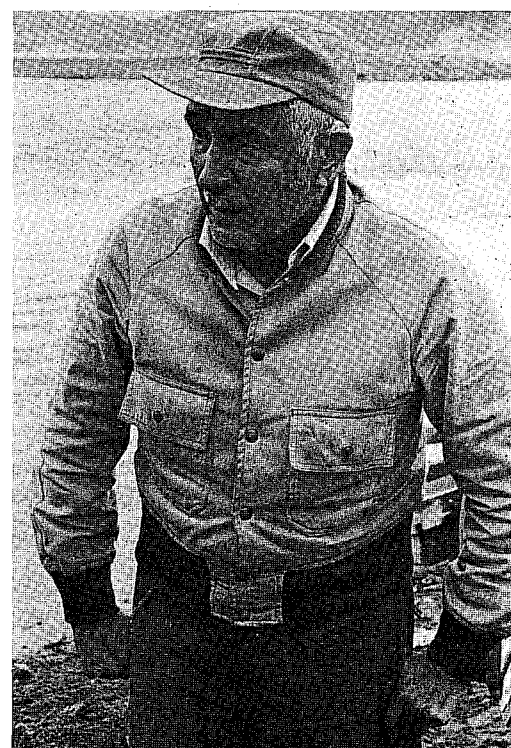


Fig. 11. Albert Louie, 1978—D. I. D. Kennedy

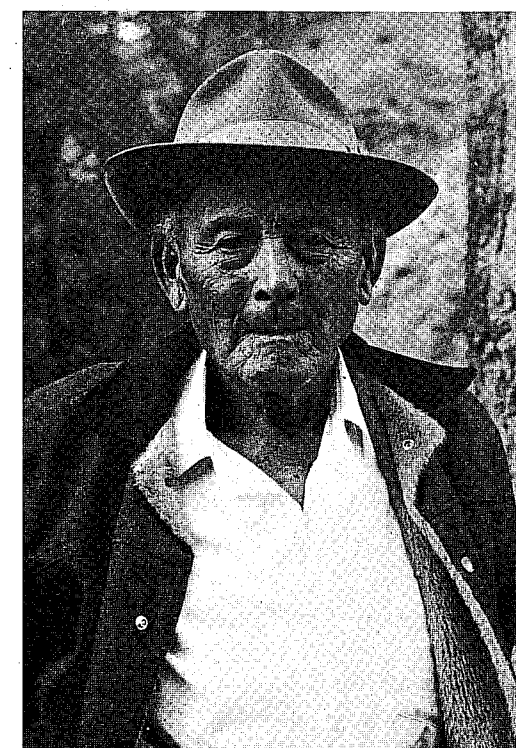


Fig. 12. Joe Abel, 1975—D. I. D. Kennedy

In the following section individual plant species are listed, along with their Indian names and uses. All of the Okanagan-Colville plant names elicited by the authors are recorded in a practical phonemic writing system devised by Bouchard and Pierre (1973); a key to this orthography appears in Appendix I. The Indian terms are transcribed by Bouchard and these transcriptions verified by Larry Pierre. The sources of these Okanagan-Colville names and information on the use of plants recorded by the authors are indicated by listing the initials of the individual informants after the name or the description of use they provided. Where the Indian plant names have also been given in the pertinent literature, the sources are cited but the different renderings are not given, unless the terms are not known to present-day informants. Plants named and/or used by the Okanagan-Colville but unidentified botanically are listed in a separate subsection.

While the various measurements provided by our informants were in the Imperial System, we have translated most Imperial figures into metric in keeping with the current move towards metric measurement. The result has sometimes created what appear to be inordinately precise figures. We ask the reader to recognize this and make the necessary allowances.

Throughout, single quotation marks are used to denote direct English translations, or glosses, of Okanagan-Colville words. Double quotation marks are used to differentiate Okanagan-Colville words in the text, to indicate local, or folk, terminology, to denote English words from which Okanagan-Colville plant names are derived, and to indicate direct quotations.

PLANT SPECIES USED BY THE OKANAGAN-COLVILLE INDIAN PEOPLE

In this section plant species are arranged within the categories of Lichens, Fungi, Mosses, Ferns and Fern-allies, Conifers, and Flowering Plants, including Monocotyledons and Dicotyledons. The last four groups are subdivided into families, which are listed alphabetically. Within these major categories, the plants are listed in alphabetical order of scientific name. Unidentified species are given last, in alphabetical order of Okanagan-Colville name.

LICHENS

There is no general name for lichens in the Okanagan-Colville language, although some informants apply the general names for mosses to various lichens. Except for the three species listed here, lichens were apparently not used by the Okanagan-Colville.

Black Tree Lichen [*Bryoria fremontii* (Tuck.) Brodo & D. Hawksw.; syn. *Alectoria fremontii* Tuck.]

plant: skwel'ip (ST; ML; CP; LP; Elmendorf 1935-36; Ray 1932:104; Lerman 1952-54; Spier 1938:30; Teit 1930:239; Gabriel 1954:26; Dumbeck 1945)

to gather black tree lichen: xipm (ML; NF; CP; LP; Elmendorf 1935-36)

black lichen gathering instrument: txipmn (ML; NF; CP; LP)

to twist black lichen off a branch: ski7alkwikstm (LP)

to clean black lichen: nexkw'iw'sntm (WA; NF; CP; LP)

This lichen is often referred to in ethnographic literature as *Alectoria jubata* (L.) Ach. (see Turner 1977:461). Most Indian people call it "black moss". It grows at higher elevations on the branches of coniferous trees such as larch (tamarack), ponderosa and lodgepole pines, and Douglas-fir. It was formerly gathered in large quantities by the Okanagan-Colville and other Interior Salish peoples for use as a food. Populations of the lichen vary in taste. Some are extremely bitter due to high concentrations of lichen acids. The taste is also affected by the type of tree the lichen is growing on; some people prefer it from larch or fir (WA; Spier 1938:28), while others prefer it from

ponderosa pine (NF; CP) or lodgepole pine (ST). Some feel that lichen collected from larch often contains small, grey "woodworms" (NF) or has a "pitchy taste" (CP), although NF states that the lichen growing on larch is longer and thicker than that on pines.

The lichen could be gathered at any time of the year, but usually it was in late summer or early fall after the work with other foods was done (ST; Spier 1938:28).

Traditionally, black tree lichen could be collected with a long pole, six to seven metres (about 20 to 25 feet) in length and usually of dry fir. This was held up where the lichen was growing and twisted to entangle it on the end, then pulled down with the lichen attached. The Lakes people used a stick with a "hook" on one end of it to gather lichen (Elmendorf 1935-36). However, the "pole" method of harvesting is now used only to obtain samples to check the quality of the tree's lichen. Nowadays the entire tree is felled (it is not known if this was also a traditional practice) and the lichen removed.

NF and CP demonstrated the collection and preparation of black tree lichen food in July, 1979. Selected ponderosa pines were felled with a power saw and the lichen was picked off the branches, thoroughly cleaned of all pitch and debris, and then stored in large sacks.

Although the lichen is palatable in its raw state and was occasionally eaten raw by hunters and in times of famine, the usual way of processing it was by pit-cooking, called "lkipm" or "t'kapsk'elstn" (LP; CP; ST; ML; NF; Elmendorf 1935-36). According to Elmendorf (1935-36), the dimensions of the underground pit were variable, but could be as much as 1.2 metres (four feet) deep, 1.5 metres (five feet) wide and three metres (10 feet) long. The pit was located away from dwellings but usually close to a stream. Men were not allowed near the pit while it was being used (NF; CP; LP), nor were women having their menstrual period or, it was believed, the lichen would not cook properly; the cooking would "go wrong" (Elmendorf 1935-36).

NF and CP in their demonstration used a circular cooking pit approximately 70 centimetres (30 inches) across and 70 centimetres (30 inches) deep. The pit was prepared for cooking in the early evening. First, several large volcanic rocks were heated in a fire of dry greasewood that was supported by three ponderosa pine logs laid side by side across the top of the pit. Additional rocks and sticks of greasewood were placed inside the pit under the logs. As the fire burned, the rocks became white-hot and dropped into the pit. Then the pine logs, which burned slower than the greasewood, were put to one side and the larger chunks of charcoal were removed from the pit. The white-hot rocks were covered with a layer of dirt about 18 centimetres (seven inches) thick. Next, a solid metal pipe (originally, a stick would have been used) was inserted down one side of the pit to maintain a passage through which water could be poured onto the rocks to generate steam. On top of the dirt, an equally thick layer of green vegetation was placed. NF and CP used timothy and quack grass, both introduced species, but, traditionally, this layer could include wild rye grass, bracken fern fronds, bunchgrass, bark, pine needles, skunk cabbage leaves, or thimbleberry leaves. The grasses were carefully dropped on to the dirt to provide an even coverage. After spreading the grass on the layer of dirt in the pit, NF stood on it to "feel" for heat with her feet. The amount of heat generated indicated the thickness of vegetation to be placed over the dirt.

While the pit was being prepared, the cleaned lichen was being readied for cooking. It was worked with the hands as it was being washed repeatedly in cold water, then rinsed and squeeze-dried and placed in two cotton sacks. A handful of "saxk" bulbs (probably *Allium douglasii*) was added to the lichen in one sack. Other foods, such as saskatoon berries, nodding onions, "black" camas (*Camassia quamash*), and other types of "camas" (*Lomatium* spp.) were often cooked with the lichen to flavour it. The top of each sack was tied; the sacks were then placed side by side on top of the grass. To add "sweetness" to the lichen, NF placed bundles of alfalfa underneath and on top of the sacks, a modern practice she learned from a Spokane woman (see also page 105). Before cotton sacks became available, the lichen was simply heaped on top of the vegetation in a layer as thick as 30 to 50 centimetres (a foot and a half).



Fig. 13. Black tree lichen (*Bryoria fremontii*) growing on larch—Nancy J. Turner



Fig. 14. Cecelia Pichette (left) and Nettie Francis gathering black tree lichen, 1979—D. I. D. Kennedy



Fig. 15. Cecelia Pichette (left) and Nettie Francis preparing the pit to cook black tree lichen—D. I. D. Kennedy



Fig. 16. Nettie Francis (left) and Cecelia Pichette removing pit-cooked black tree lichen from sacks—D. I. D. Kennedy

Next, NF covered the sacks with a large, open sack to keep the dirt from falling through onto the food. (On another occasion, NF used skunk cabbage leaves for this purpose.) This sacking was followed by another thick layer of grass and finally by an approximately 25-centimetre (10-inch) thick layer of dirt, which was firmly pressed into place. The upright pipe was then pulled out quickly and about one and a half gallons of water were immediately poured into the hole it left. Steam shot up through the passage and it was quickly plugged with dirt. A fire was then lit on top of the pit and left to burn out during the night. Early the following morning, the fire was rekindled and kept burning for about five to six hours. It was lit again in the early evening, although NF and CP believed that the lichen was probably cooked by this time. The women took turns watching over the cooking pit to ensure that the fire was kept in control; too large a fire would cause the lichen to burn. Elmendorf (1935-36) records that in the Lakes area certain women were appointed to tend the fire over a three-day period. These women prepared themselves by fasting, and tied their hair back with pieces of vermilioned buckskin or carried a piece of it about with them.

When the cooking had continued for two nights and one day, the dirt and vegetation were removed and the sacks of cooked lichen were carefully taken out (digging any pit-cooked food out of the ground is called "tl'ekiltm"), laid on a table, and opened. The lichen had compressed to a thickness of about 7.5 to 10 centimetres (three to four inches), less than half its original thickness. It was jet-black and had the appearance and consistency of licorice. The soft, warm lichen was then cut into loaves and divided among those who had collected and prepared it. The vegetation used to protect the food in the cooking pit could be used again on another occasion (NF; CP; Elmendorf 1935-36).

While still warm, part of the lichen was mixed with white sugar and eaten. The remainder was dried into thin, hard cakes, or partially sun-dried and ground into small pellets which were then further sun-dried. These pellets could be stored almost indefinitely. Occasionally, dried lichen was eaten as is, but nowadays it is boiled with water, flour (or tapioca), and butter, to make a pudding. After being cooked, the lichen was mixed with other foods, such as bitter-roots, "Indian carrots" (*Perideridia gairdneri*), Douglas-fir sugar, or more recently, raisins, apples, and brown sugar. Dried lichen cakes can be rehydrated by soaking in water overnight; these dried cakes can also be dipped in soup and eaten like bread or crackers, or mixed with dry meat as flavouring. The dried cakes will keep up to three years if well preserved (Spier 1938:28). Ray (1932:104) states that this lichen was one of the best-liked of all vegetable products among the Sanpoil-Nespelem. Although few women today know now to prepare lichen in the traditional manner, it is still a highly valued item among the Sanpoil and neighbouring groups.

WA described another way of cooking black tree lichen, called "spatkán". The lichen was roasted over hot coals, on a stick which was turned frequently, until the lichen started to crumble; it was then boiled until it attained the consistency of molasses.

LP notes that the old timers' explanation for a woman's lichen being improperly cooked was that she must have "urinated on her hip" (the underlying meaning of this expression is not clearly understood by the authors).

At least two places in Okanagan-Colville territory are named after black tree lichen: "skwekwelip" ('little black tree lichen'), a sidehill area about 21 kilometres (13 miles) north of Princeton on the Merritt-Princeton highway (HR); and "snkweliptn" ('black tree lichen place'), on the north side of Strawberry Mountain, northeast of Omak (ML; AL).

After babies were weaned they were given a mixture of saskatoon berry juice and a "syrup" of boiled black tree lichen (Gabriel 1954:28). It was believed that pregnant women should not eat this lichen because it would make their babies dark (Lerman 1952-54). The fresh lichen was dried, powdered, mixed with grease, and rubbed on the navel of a newborn baby (LA).

According to Okanagan-Colville mythology, black tree lichen is said to have originated from Coyote's hair. Coyote had attempted to capture some swans, but instead they flew into the air,

taking him with them. The swans let go of Coyote when they were up high. He fell and became lodged in the branches of a tree. Finally he was able to free himself, leaving much of his hair entangled in the branches. Coyote then transformed this hair into black tree lichen, saying "You, my hair, will not be wasted. The coming people will gather you and make you into food." Thus he changed it to its present form and it has been used as food ever since (LP). Variants of this legend have been recorded by Mourning Dove (1933:119) and Spier (1938:225).

Cup Lichen [*Cladonia chlorophaea* (Flk.) Spreng. and related species]
peñpeñemekxíxñ (LA; WA only) (pnimk 'liver') lit. 'liver on rock'

The whole plants were boiled and the solution used externally to wash sores which were slow to heal (LA).

Wolf Lichen, or Wolf "Moss" [*Letharia vulpina* (L.) Hue]
kwerníkw (ML; NF; CP; Teit 1930:294) (kwerí7 'yellow/green'); kweríkw (ST only)

This lichen, a wiry, bright yellow-green species which grows on wood and bark, often with *Bryoria fremontii*, was used by the Okanagan-Colville to make a yellow dye. For this purpose it was boiled in water, alone or with Oregon grape bark (ST; ML). This dye was used mainly for basket materials and fibres. As a medicine, this lichen was boiled and taken in a weak solution for internal problems and, in stronger solution, was used to wash external sores and wounds (ST).

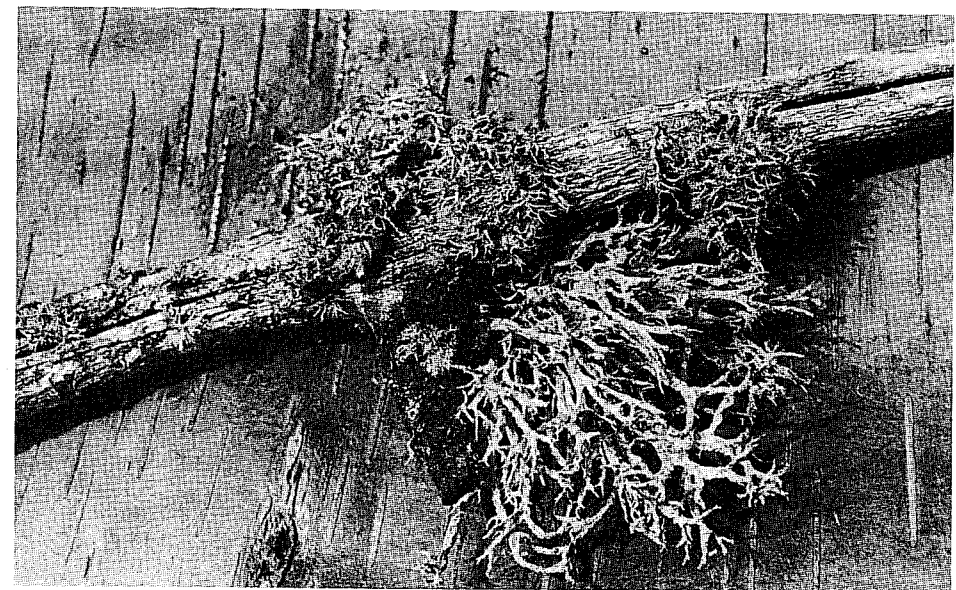


Fig. 17. Wolf lichen (*Letharia vulpina*)—Robert D. Turner

FUNGI

Puffballs (*Lycoperdon* spp., *Calvatia gigantea* Pers.)

p'akwstn (ST) (ML knows this name only as 'Indian paint' composed of red ochre and various dye plants) (p'akwsm 'to paint oneself'); s7itx (ML; LP); also xágxag lhaks p'akwstn 'crow's p'akwstn' (ST; ML) or xágxag lhaks tuímn 'crow's Indian paint' (ST; ML) (the last two names ML applies only to a "giant" puffball); or tmtmni lhaks p'akwstn 'ghost's p'akwstn' (LP; NF)

small, montane puffball: spkwúla7xw (ML only) lit. 'spilled on the ground'

There are several types of puffballs recognized by Okanagan-Colville informants, ranging from white to yellowish to dark brown and from the size of marbles to that of baseballs. The spore powder from mature specimens was used as talcum powder, especially for diaper rash. For a severe rash, the spores were mixed with alumroot (*Heuchera cylindrica*) (ML). The spore powder could also be applied directly on sores (LP). To prevent excessive urination in babies, a puffball was broken open and rubbed on the buttocks (Ray 1932:128). The term "p'akwstn" is also applied to red ochre paint powder which was used for decorating the body. Possibly, there is also some relationship to the Indian paint fungus (*Echinodontium tinctorium*) (see under Tree Fungi).

Mushrooms

Several types of "mushrooms" were recognized by the Okanagan-Colville. All were called by the general name of "p'etl'kín" (ST; ML; Lerman 1952-54) (p'utl' 'come to an end; completed' — lit. 'finished at the head end'; cf. also p'etl'kínm 'to push up through the leaves' — LPR; ST). This term also applies specifically to two types of mushrooms: a small, white, rounded one about five centimetres (two inches) tall and 2.5 centimetres (one inch) across; and a large brown one, 7.5 to 10 centimetres (three to four inches) across, which comes up after rains in September and October along river and lake banks under cottonwood trees [possibly *Phaeolepiota aurea* (Mattuschka ex Fr.) Maire ex Konr. & Maubl.]. Both these types were eaten, the former raw (ST), the latter boiled and mixed with deer meat to make a soup (ST; ML). According to Spier (1938:29) they were eaten fresh but not dried. Another edible "mushroom" (actually a tree fungus) is given a special name and is described in detail. Inky cap, considered to be poisonous, is also given a special name.

Babies were sometimes bathed in a mushroom broth to make them strong. Just as the mushrooms can push rocks aside when they are coming up through the ground, the baby would be able to push men aside when it grew up (Lerman 1952-54).

Inky Cap (*Coprinus micaceus* Fr.)

paṛkewítsiya7 (ST; ML) (peṛák 'punctured through')

This mushroom is believed to be poisonous (ST; ML).

"Cottonwood Mushroom" [probably *Polyporus sulphureus* (Bull.) Fr.]

ihágpnta7 (ST; ML; HR; Lerman 1952-54; Spier 1938:29); hápu (NF only); tkwelkwelutálakw (LP) [kwil 'sitting down' (pl.) lit. 'objects sitting on wood']

This is considered to be a kind of "p'etl'kín", but has a special name because of its importance (ML). It grows in late fall on logs, stumps, and trunks of cottonwood trees. It is tough, but when cooked properly has an excellent flavour. It could be boiled for a long time, then fried (ST). WA used to eat it boiled in milk. When meat was being barbecued, the boiled "mushroom" could be cut into pieces and inserted into holes cut in the raw meat. This not only tenderized the "mushroom" but imparted a nice flavour to the meat (ML). This "mushroom" could also be dried for winter use, when it would be cooked in soups (ML; ST), although Spier (1938:29) notes that it was neither dried nor preserved.

Tree Fungi, General (*Fomes* spp., *Polyporus* spp.)

kmṛkw'álek (ST; ML) (makw 'lump'; -álek 'wood') lit. 'lump on wood'

birch fungus [*Fomes fomentarius* (L.) Gill.]; ktikwmn (ML) (sti7íkw 'burning coal')

The Okanagan-Colville people recognize several types of tree fungus, all (except the "cottonwood mushroom") called by the above name, although each is said to have specific properties. One kind, which grows on Douglas-fir, was removed, dried by the fire, pounded into a powder, and

boiled for five minutes to make a tea for people with tuberculosis (ST; ML). Another kind, from ponderosa pine, was used both as a poultice and as an internal medicine, and as an antidote for poisoning (ST; ML; LP). When ST's father had pains and swelling in his joints, he cut down a pine tree, cut off some of this fungus, sliced it, boiled it, and soaked his sore joints in the solution. It is said to be good for any sore bones or swellings. Instead of being boiled, it can simply be steeped in hot water for the same purpose (ST).

As an internal medicine for poisoning or stomach sickness it can be set by the fire until it turns red, then scraped with a knife to obtain three to four tablespoons of powder. One spoonful stirred into a cup of lukewarm water resembles dissolved milk of magnesia. It is drunk, followed by a second cupful made with cold water. The first dose causes vomiting or, at later stages of poisoning, causes emptying of the bowels. The second dose cleans out the intestines. After a short while one feels hungry and is cured (ML). For a serious cut, "kmṛkw'álek" was powdered and mixed with the inner cambium from "grey" willow and applied directly to stop the bleeding; however, great caution was used when applying this cure (AL).

A third kind of tree fungus, "ktikwmn", probably *Fomes fomentarius*, is small and flat and grows on birches. This is pounded until it gets "mushy", placed in a cloth, and applied as a poultice to areas affected by arthritis. The skin is kept warm with hot towels during this treatment (ML). As a cure for rheumatism, the skin above the affected area was moistened with spittle and a small piece of fungus was placed on it, then ignited and allowed to burn down to the skin. If the smouldering fungus "popped" when it reached the skin, the cure was successful; the rheumatism "jumped out". Lerman (1952-54) described this cure but did not know what plant was involved; ML verified that it was this fungus. It was used similarly by the Shuswap (Palmer 1975:49).

Another kind of tree fungus, growing on red cedars, was burned to produce a kind of Indian paint which was deep red (ML). This is probably *Echinodontium tinctorium* Ell. & Everh., the Indian paint fungus.

MOSESSES

The following names include all types of mosses and liverworts, as well as *Selaginella wallacei* Hieron., a fern-ally, and, for some informants, lichens:

"moss" on ground (general): nkweskwespúla7xw (ST; ML) (-úla7xw 'ground')

"moss" on rocks: tkweskwespíxñ (ST; ML) (-isxñ 'rock')

"moss" on wood: tkweskwespálek (ST; ML) (-álek 'wood')

"moss" (and moss-like plants) in water: nkweskwespítkw (ST; ML; HR) (-itkw 'water')

All of these names are derived from the Okanagan-Colville term "kwás" ('web-like'). Mosses were not used by the Okanagan-Colville, as far as ST recalls. If moss starts to turn bright green in summer it is an indication that rain is coming (Lerman 1952-54).

FERNS AND FERN-ALLIES

Horsetail Family (Equisetaceae)

Horsetails, or Scouring Rushes (*Equisetum arvense* L., *E. hyemale* L., *E. laevigatum* A. Br.)

small horsetails (e.g. *E. laevigatum*): i7ts'í7stñ (ST; ML) (diminutive form)

large horsetails (e.g. *E. hyemale*): its'í7stñ (ST; ML; Lerman 1952-54; Spier 1938:54; Ray 1932:36, 218)

ST calls the spore-producing heads of small and large horsetails "nt'ep'tepkín i7ts'í7stñ" and "nt'ep'tepkín its'í7stñ", respectively [nt'ep'tepkín — (t'ap 'type of round object' and -kín 'head'); see also *Matricaria*]. Both ST and ML ate the heads of the smaller type when they were children, but these were not a regular food. Both large and small horsetails were used in the old days as sandpaper,

to polish bone tools and soapstone pipes. The pipes were first coated with a "varnish" of warm salmon slime, which was allowed to harden, then rubbed with horsetail stems. Women used horsetail to polish their fingernails (ML). The roots of *E. hyemale* were used by the Sanpoil-Nespelem to imbricate woven bags and baskets (Ray 1932:36).

In winter, when there was a shortage of hay, horsetail hay was used. A thin, old horse gets diarrhoea if it eats fresh grass in spring. This condition was relieved by mixing horsetail with the grass (ST). [Note, however, that according to Kingsbury (1964:58) and others, horsetail is a common cause of livestock poisoning]. ML had not heard of horsetail being used as fodder, but did not believe it to be poisonous.

Both large and small horsetails were used as medicine. The stems of the large ones were boiled and the solution used to wash skin sores of children (LA). The fluid in the stems was used as an eyewash (ML). As an internal medicine, the larger type (*E. hyemale*) was preferred because it was said to be stronger, but the smaller ones could also be used. The stems were steeped in hot water and the "tea" was drunk for sluggishness due to a cold, as a diuretic to stimulate the kidneys, and for backache and lumbago (ML). For syphilis and gonorrhoea, horsetail was boiled with false box (*Paxistima myrsinites*) or with the clear pitch from the bark blisters of subalpine fir (*Abies lasiocarpa*). Cupfuls of this mixture were drunk every day, along with sporadic doses of pure pitch, but this substance was too strong to be taken frequently or in quantity. The patient also bathed in the horsetail-pitch solution. This treatment was said to be very effective (ST). The small horsetail was boiled with chokecherry twigs to make a tea for children with colds (ST). The hollow stems of horsetails were used to administer medicines to babies (Ray 1932:218). Horsetail was pounded, mixed with water and used to wash areas of the body affected by poison ivy (LP).

A certain place between Twin Lakes and Inchelium where horsetails grow is called "a7klh-i7ts'i7sth" ['place of (small) horsetails'] (ML; AL). In mythical times, Coyote was said to have used a horsetail stem for a canoe (Lerman 1952-54).

Fern Family (Polypodiaceae)

Ferns: Bracken Fern, Oak Fern, Woodsia, Lady Fern [*Pteridium aquilinum* (L.) Kuhn, *Gymnocarpium dryopteris* (L.) Newm., *Woodsia scopulina* D. C. Eat., *Athyrium filix-femina* (L.) Roth.] and other species

large ferns (e.g. bracken fern): txetx'itkst (ST; ML) (xit 'jagged edge') lit. 'jagged edges'
small rock ferns (woodsia and oak fern—see also *Pedicularis bracteosa*): txextx'ita7kst (ST; ML) lit. 'little jagged edges'

There are several kinds of ferns in Okanagan-Colville territory, but they are usually distinguished linguistically only on the basis of size. Ray (1932:106), however, gave the name "tsuqtsuqma-tp" for bracken, but this was not recognized by ML, NF or CP (Ray translated this as 'cedar plant'). The fronds of the large ferns, such as bracken, were dipped in water and used in pit-cooking to place over and under the food being cooked (ST; LP; ML; Ray 1932:106). Bracken rhizomes were eaten by some Interior groups (Turner 1978:49) but apparently not by the Okanagan-Colville (ST; ML; LP; NF). The presence of ferns is considered to be a sign of water when one is travelling through the mountains (ML). (Note: Bracken fronds are poisonous when mature and the entire plant is known to contain carcinogenic substances.)

CONIFERS

Cypress Family (Cupressaceae)

Dwarf, or Creeping Juniper (*Juniperus communis* L.)

snts'its'kpna7 (ST; ML; HR) [ts'ikts'ekt 'prickly', referring to the rough inner part of the upper lip of a deer, because this hrub looks like this (HR; ST)] (see also stonecrop)

Two types of this juniper are recognized by Okanagan-Colville informants: one is 30 to 60 centimetres (one to two feet) high, with blunt needles, and the other is 90 centimetres to 1.2 metres (three to four feet) high, with sharper needles and of a different colour (possibly vars. *montana* Ait. and *depressa* Pursh respectively). The needles and bark, especially of the higher variety, were used as medicine. They could be gathered at any time. They were steeped in hot water and the infusion drunk for colds and consumption (WA) or as a tonic before entering the sweathouse (ML; ST). The branches were boiled in water, which was then used to wash the body to protect a person from evil influences or "plhax" ('witchcraft') (HR).

A place between Republic and Inchelium (between Mt. Baldy and Grizzly Mountain) is called "a7klh-snts'its'kpna7" ('place of dwarf juniper'). People used to journey to this rocky point from far away to get juniper for use in the sweathouse in winter (ML).



Fig. 18. Rocky Mountain juniper (*Juniperus scopulorum*)—Robert D. Turner

Rocky Mountain Juniper (*Juniperus scopulorum* Sarg.)

punlhp (ST; ML; HR; Lerman 1952-54; Watkins 1970:32)

The wood is extremely tough and was formerly used for bows and for making double-yokes for horses (ST; ML). It was also used to make a type of spoked wheel [with an outer ring about 45 centimetres (18 inches) in diameter, an inner ring of 15 centimetres (six inches) diameter and with eight thin spokes spaced between them] called "kakitsela", which was used in a throwing game. The wheel was rolled along a trough and contestants threw spear-like sticks at it, trying to stop it by having their stick enter the centre of the wheel, thus making it fall over. Lesser points were made by getting the stick part-way through the spokes, each of which gave a different value according to its colour. The winner had to get 20 points. This game was played by men and was often accompanied by betting (HR).

Arrowheads, soaked overnight in a solution of pounded juniper branches (with berries) and water, were said to cause a deer's blood to coagulate when it was wounded so that it couldn't run far (JA; Lerman 1952-54). This "poison" worked effectively, even if the deer were only nicked with the arrowhead. It was said not to affect the edibility of the meat. The "poison" was equally effective in killing people quickly in warfare (JA; WA; LPR). Some people still use the juniper poison today on their bullets (WA). A medicine for flu and colds was made by boiling the sap from five, five-centimetre by ten-centimetre (two by four-inch) strips of bark in about two litres (half a gallon) of water to make a tea. Only bark from the bottom part of the tree could be used. ML has tried this medicine himself (ML). The 7.5-centimetre (three-inch) long branch tips were dipped in boiling water, needles and all, and the solution was given to a person who was haemorrhaging internally. This stopped the bleeding immediately; it was a good emergency medicine (LA). The branches were mashed and dampened and used as a poultice for skin sores and arthritic joints (HR; Watkins 1970:32; Ray 1932:221). The berries were believed to be poisonous. A few could be steeped in hot water to make a drink for taking in the sweathouse. This drink could only be taken with great caution (HR). The berries were also said to be good for tuberculosis (Lerman 1952-54; Ray 1932:221).

There was a place called "a7klh-púnlhp" ('place of juniper') near Inchelium, on the east side of the Columbia River (ML; AL; LP). This area is now flooded. Another place, of the same name, is a creek entering the east side of the Ashnola River, 22.5 kilometres (14 miles) south from the Similkameen River (HR).

Juniper is considered an extremely powerful medicine for combating evil spirits associated with death. When a person died, his family used the boughs to fumigate the house; all the doors and windows were closed and the boughs were burned and the smoke allowed to fill all the rooms. This treatment was made even more effective by adding rose branches to the juniper. After the smoke treatment, rose and juniper branches were boiled together and the water used to wash the entire house — lights, windows, floors, walls, and ceilings. This wash water was then taken outside and splashed all around the house and along the trails leading to the outbuildings to prevent the spirit of the dead person from coming back to the house; "It's the meanest medicine" (ST; ML). Even today juniper boughs are placed on the stove to fumigate the house and give it a nice smell and to protect its inhabitants (ST).

Western Red Cedar (*Thuja plicata* Donn.)

mxilhp (ST; ML; Lerman 1952-54); or astkw (Dumbeck 1945; "astkw" is the only term for cedar known to LP, NF and HR, but AL and ML occasionally use the term also to refer to "a dead cedar" and ST translates it as "the tallest of the cedars"); Ray (1932:35) gives a term for "cedar" recognized by NF as "ts'áp'a7x", which she states is actually the Moses (Columbian) word for 'cedar root'

This tree grows near water in the dry Interior. Large cedars were formerly felled by burning around the base (ML). The Sanpoil-Nespelem obtained cedar only on the river as driftwood (Ray 1932:119). The logs were then burned into six-metre (20-foot) lengths and boards split-off with horn wedges. These boards were called "stspik" (pik 'to split, flatten'), a term now used for the White man's lumber (ML). They were used to make A-frame type shelters and to cover the rafters of an underground house (ML). Cedar wood was also used to make dugout canoes, frames for birch-bark canoes, paddles, drum hoops, bows and arrows, dipnet frames and many other articles. Cedar dugout canoes are called "s7astkwíwlh" (ML). Peeled cedar poles were set up on graves as markers (Spier 1938:127). The fibrous bark was used to make a covering for sweathouse frames and insulation for tule teepees. It was also used to make a type of raised storage cache called "kiyágw" (AL; NF). When tule was not available, cedar bark was used for weaving mats (Lerman 1952-54; HR; ML). It was also used for weaving rough baskets called "k'alíp'a7" (LA; AL). Cedar roots

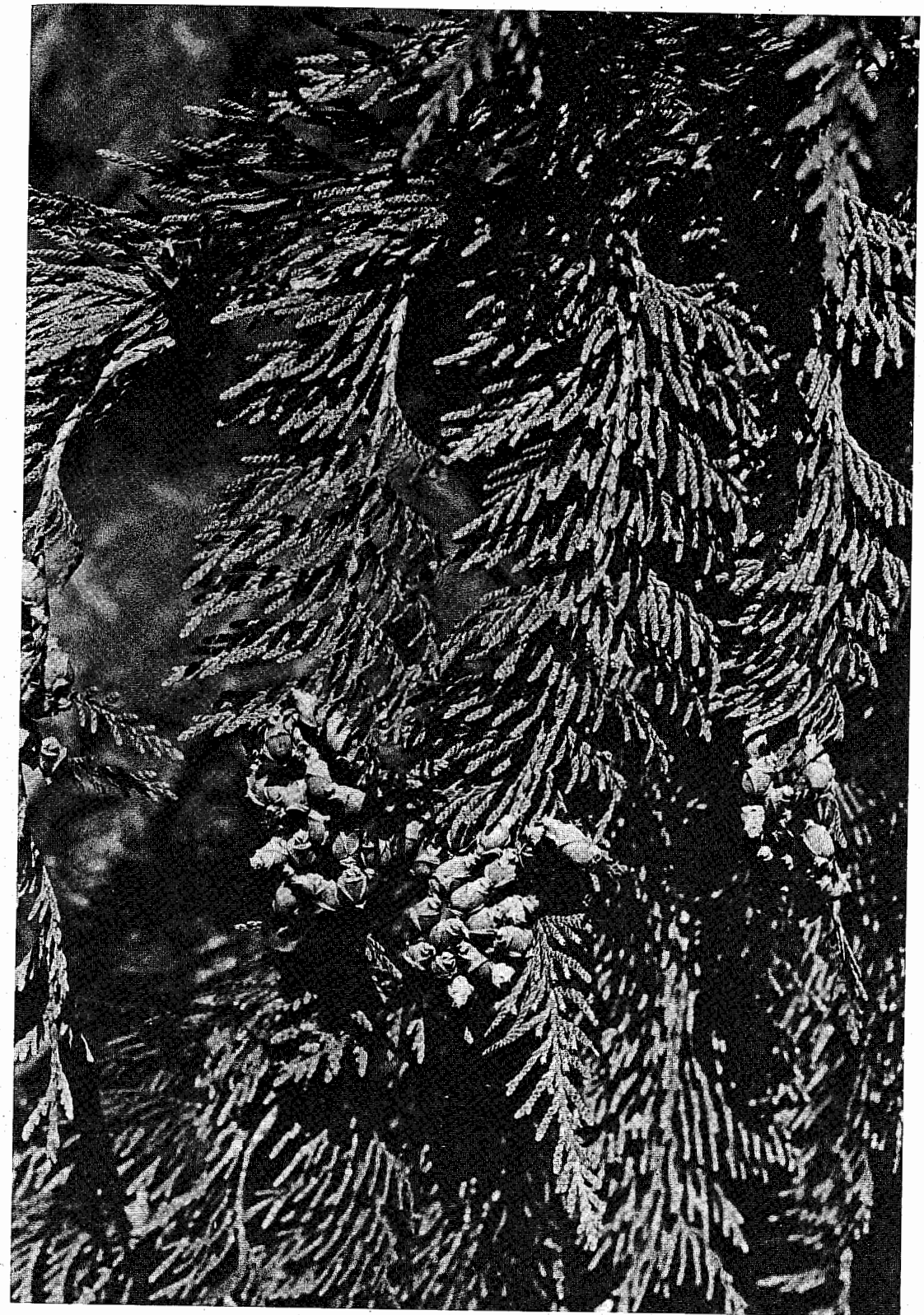


Fig. 19. Western red cedar (*Thuja plicata*)—Robert D. Turner

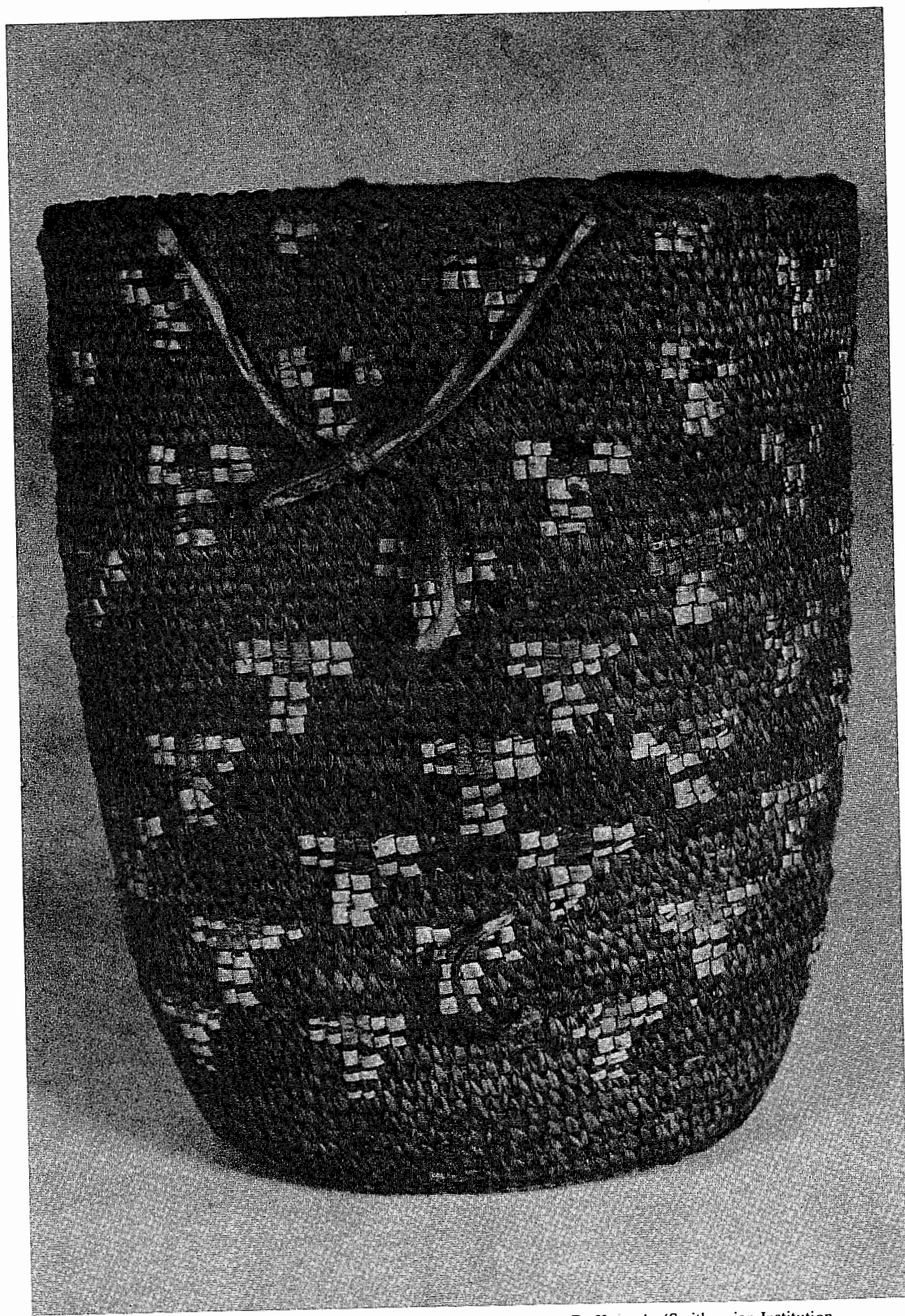


Fig. 20. Coiled basket of cedar root (Southern Okanagan)—D. I. D. Kennedy (Smithsonian Institution, Washington, D.C., artifact 277,600)

were split and used to make a high-quality coiled basket called “yám_xwa7” which was watertight and strong. Such a basket was imbricated with bitter cherry bark and rye grass (HR). The Sanpoil people had to travel to the area around Republic to obtain good cedar roots because cedar is very scarce in the southern part of their territory (Ray 1932:35).

Cedar boughs were boiled with Douglas-fir boughs and rose branches, and often a small quantity of stinging nettle, to make a solution used for washing the skin and hair during sweat-bathing. This decoction had a beautiful smell. It could also be drunk as a sweathouse tonic. A weak infusion of cedar boughs alone could also be taken (ML; WA; LA). To make the bathing water for the sweathouse ritual, small bundles of cedar, fir, and rose branches of equal size were used (ML). Cedar boughs could also be used to scrub the skin in the sweathouse, but one had to be careful not to rub too hard because they could cause skin infections (LA). In recent years, because of the Indians' use of cedar boughs in church on Palm Sunday, this special day was referred to as “kwíltsen”, even though the term has a more general meaning of “any conifer bough” (AL; NF).

An infusion of boiled cedar boughs was especially good as a hair wash. It eliminates dandruff and kills “germs” in one's scalp (ST). People with arthritis and rheumatism used to soak in a cedar-bough solution to ease the pain in their joints. They could also drink it if it was very weak, but had to be careful because it was toxic in large doses (WA; LA). The Siwash Creek area of the Okanagan Indian Reserve, on the west side of the head of Okanagan Lake, is called “n7a7stkwí7kw” (‘having cedar in a small stream’) (JA; ML; Lerman 1952-54). Another place — a small canyon on the west side of the Columbia River on the south fork of Barnaby Creek — is called “a7klh-á7stkw” (‘small place of red cedar’) (ML; AL).

Pine Family (Pinaceae)

Grand Fir, or Silver Fir (*Abies grandis* Lindl.)

(s)t'ekwí7lhp (ML only) [t'ikw — ‘burst’ (with reference to the blisters) (see also *Abies lasiocarpa*)]

This tree is similar to “merí7hp” (*Abies lasiocarpa*), but much bigger, with pitch blisters about five centimetres (two inches) in diameter and 2.5 centimetres (one inch) thick, with lighter bark and the undersides of the needles lighter green. Its pitch is used in the same way as that of “merí7hp” (ML).

Subalpine Fir, or “Balsam” [*Abies lasiocarpa* (Hook.) Nutt.]

merí7hp (ST; ML; Lerman 1952-54; Spier 1938:166; Gabriel 1954:29) (merí7mstn — ‘any medicine’); or st'íkwe7kw (LP; NF; Ray 1932:88) [t'ikw — ‘burst’ (with reference to the blisters, which are also called st'íkwe7kw) (see also *Abies grandis*)]

Most Indian people know this as “balsam tree”. It is an important medicine to the Okanagan-Colville, especially the clear liquid pitch from the blisters beneath the bark. When these blisters are cut the pitch squirts out. It can be collected in a spoon or a dipper, or by inserting a tool made from the hollow legbone of a bird, such as a grouse, into the blister. This tool is called “klhag7háp7le7wtn” (lit. ‘tool for sucking wood’) (ML). Large blisters might yield as much as 10 drops of fluid, while small blisters yield one or two drops. The term for gathering this pitch is “kt'kwá7kwem”. Once collected, the pitch can be stored in a container until needed (ST). If it gets dirty it can be melted and strained.

A person with consumption would take two doses of 10 drops each, once before bedtime and once in the early morning. About noon, he would vomit and relieve his bowels. In the vomit would be one or two little “worms” which were believed to be the cause of the consumption. Afterwards the person began to feel better and could eat boiled dried salmon and a few mouthfuls of soup (ST). The pitch was also taken in small doses for ulcers (WA), appendicitis (Lerman 1952-54) and a

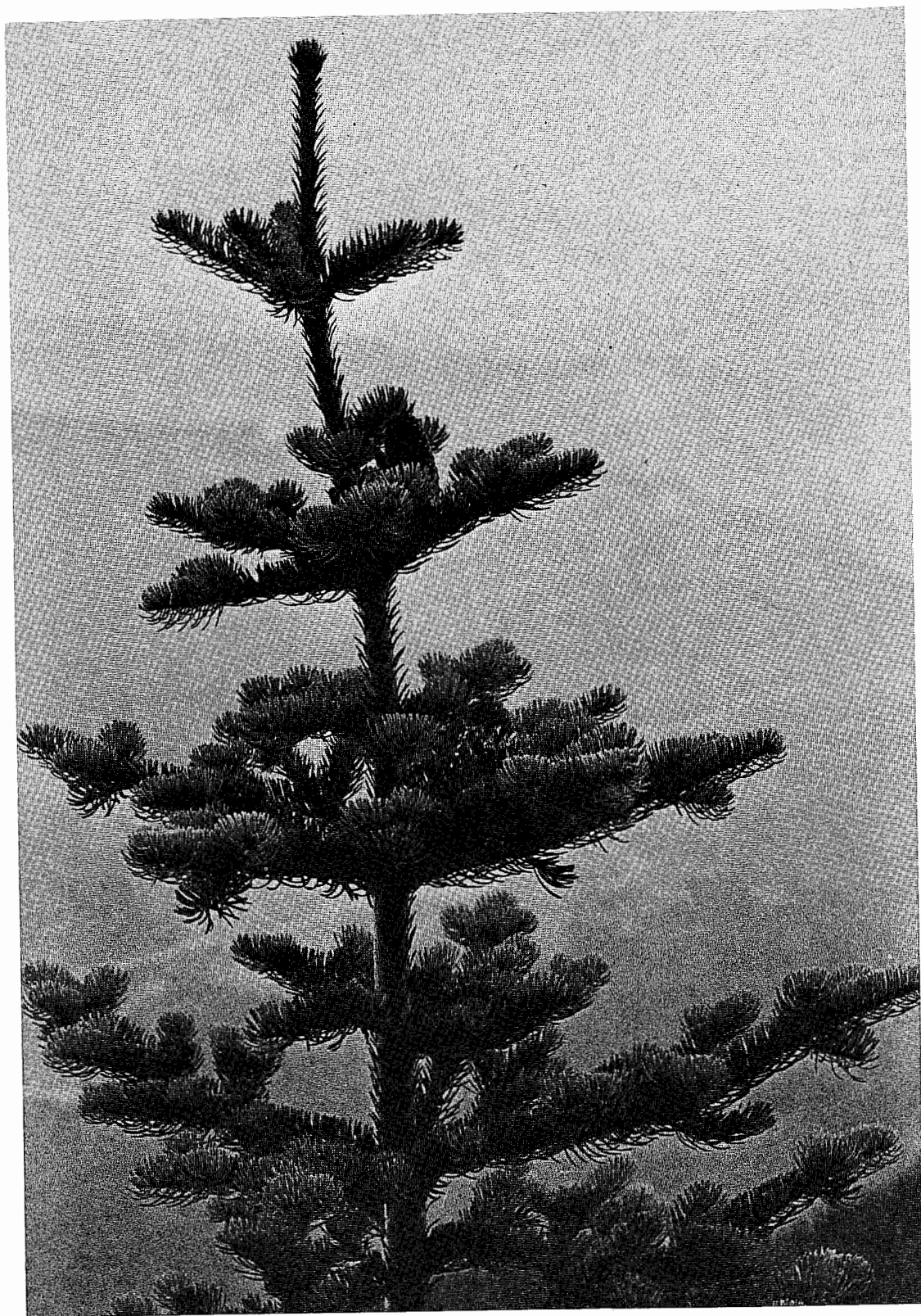


Fig. 21. Subalpine fir (*Abies lasiocarpa*)—Nancy J. Turner

general feeling of weakness and loss of appetite (ST). Mixed with deer marrow it was applied externally each evening to cure a goitre. It was left on the skin overnight (LA; ML). The pitch could also be rubbed on the backs of bows after they were wrapped with bitter cherry bark (Ray 1932:88).

If one had a "bad stomach", with a loss of appetite and loss of weight, he would take a "tea" made by boiling three or four pieces of "balsam" bark in water. The dosage was three cups a day for four days. This treatment caused a general sick feeling accompanied by aching of the bones, vomiting, and purging of the bowels, but after four days the patient would wake up feeling better and with a good appetite (ST). A tea made from the bark was also taken for a bad cough (WA). The branch tips were chewed by one of our informants as a remedy for an allergy caused by water hemlock (see *Cicuta douglasii*). Both bark and boughs were used as a deodorant and cleanser. The bark was dried and powdered and rubbed on the neck and under the arms like talcum powder. The needles, dried and powdered, were mixed with marrow to make a hair dressing, to make the hair smell nice and to keep one from going bald (LA; Lerman 1952-54). The boughs were sometimes used as a bedding base in the sweathouse (ML). To make a baby short and strong, it was bathed in a solution of "balsam" boughs (Lerman 1952-54). A person who had fainted was revived with the strong-smelling branches (Spier 1938:166). ST believes the "balsam tree" to be the "king" of the coniferous trees, according to her conception of Northern Okanagan cosmology.

Western Larch, or Tamarack (*Larix occidentalis* Nutt.)

tsikwlx (ST; ML; HR; Lerman 1952-54; Gabriel 1954:29; Elmendorf 1935-36) [tsikw 'blood-red colour' (LPR); however, AL and SL believe the meaning of "tsikw" in this instance is 'naked or bare']

larch gum: nts'imts'm (ML; HR); or sts'imts'm (ST)

larch sap: sts'mkin (AL; LP)

small larch tops (used as medicine): snstskwlxken (ST); or snstskwlxken (ML; LP; NF)

Most Indian people know this tree as tamarack. Larch sap, when it runs out of the tree and hardens, can be eaten like candy. It is sweet and is available at any time of the year (LP; Elmendorf 1935-36). The stumps of burned or fallen trees yield good gum for eating (Ray 1932:105). The Lakes people placed pieces of larch gum in baskets and dissolved them with hot rocks and water, skimming off conifer needles and other extraneous matter, to make a syrup (Elmendorf 1935-36).

From the ages of 9 to 16, Northern Okanagan girls covered their faces with red paint. This was made with either red earth or pigment from larch trees. A "lump" (pitch?) was taken from the tree, heated in the fire, then rubbed with a stone until it became a fine powder. A mortar and pestle could be used to grind it down. The powder was mixed with grease and smeared on the face. Its purpose was to hide a girl's face from men and also to improve her complexion. Larch paint for other purposes was made by mixing the powder with the sticky resin from cottonwood buds (Lerman 1952-54; this species may actually be *L. lyallii* Parl., the alpine larch — Lerman notes that it grows between Hope and Princeton, near Manning Provincial Park). Larch sticks were sometimes used as salmon spreaders (Elmendorf 1935-36).

A type of liquid pitch which is secreted by certain larch trees (possibly the "syrup" mentioned earlier) was used as a medicine, but no details are given (Lerman 1952-54). The tops of the young trees were used to make a medicine for "changing of the blood" in spring and fall. (The Okanagan-Colville believe that the blood changes in quality over the year; in summer it becomes thin and in winter it thickens to allow one to better withstand the cold. This process is aided by taking certain herbs.) The tops were broken off 60 to 90 centimetres (two to three feet) down and boiled, needles and all, to make a strong tea, taken by the entire family in March and November to help "changing of the blood" (HR). It was a good blood purifier at any time of the year, especially when mixed with Oregon grape (ST). The tops could also be boiled and used as an antiseptic wash for cuts



Fig. 22. Harry Robinson gathering tops of young western larch, or tamarack (*Larix occidentalis*)—D. I. D. Kennedy

and sores (LP) and to soak arthritic limbs and severe skin sores (Ed Monaghan, pers. comm). Monaghan also stated that for severe arthritis or cancer a decoction, reheated each time, was drunk several times a day for a prolonged period of time. NF also knew of the use of this decoction for arthritis.

When the larches change colour in the fall it is a sign that the pregnant female bears are going into their dens for the winter; other bears stay out longer. It was believed that if the needles fell on the rump of a pregnant bear it would cause her to have a miscarriage (Ray 1932:214; WA). Also in the fall, blue grouse like to eat tamarack buds (LP). In Northern Okanagan mythology, the larch or tamarack was formerly a man-eating monster. Coyote broke off its top and changed it to its present form. He also gave it its excellent medicinal properties (ST).

The north side of a certain mountain, southeast of the Colville River mouth, is called "k'lh-tsek_wla7xwink" ('larch on the side-hill') (ML). Stranger Mountain, about five kilometres (three miles) southwest of Inchelium, is called "tsek_wts_kwelxina" ('larch around the edge') (Bouchard and Kennedy 1979).

Engelmann Spruce and White Spruce [*Picea engelmannii* Parry ex Engelm. and *P. glauca* (Moench) Voss]

t'est'esilhp (ST; HR) (t'est'agst 'hard'); ts'ikts'ekt (Lerman 1952-54; ML) lit. 'prickly' (cf. *Juniperus communis*); tsets'ikts'ekt (AL); tsets'ikts'eklmix (LP; NF; CP)

These two species are very similar and commonly intergrade where their ranges overlap. They are apparently not differentiated by the Okanagan-Colville. ML calls these trees "green spruce". A pleasant tea was made by travellers in the mountains by boiling a few branches in water (ML; HR). Spruce roots, split and soaked in water, were sometimes used to sew the tops of birch-bark baskets (Lerman 1952-54). The Sanpoil sometimes used them as a substitute for cedar roots to make coiled baskets (Ray 1932:35). The bark was steeped in hot water to make a medicine for tuberculosis and other respiratory ailments (HR; ML; Watkins 1970:31). It was also boiled in water to make a spring tonic (Watkins 1970:31).

White-bark Pine (*Pinus albicaulis* Engelm.)

sk'ewk'ewilhp (ST; HR) (sk'awk'ew — 'pine seeds') lit. 'pine seed tree'

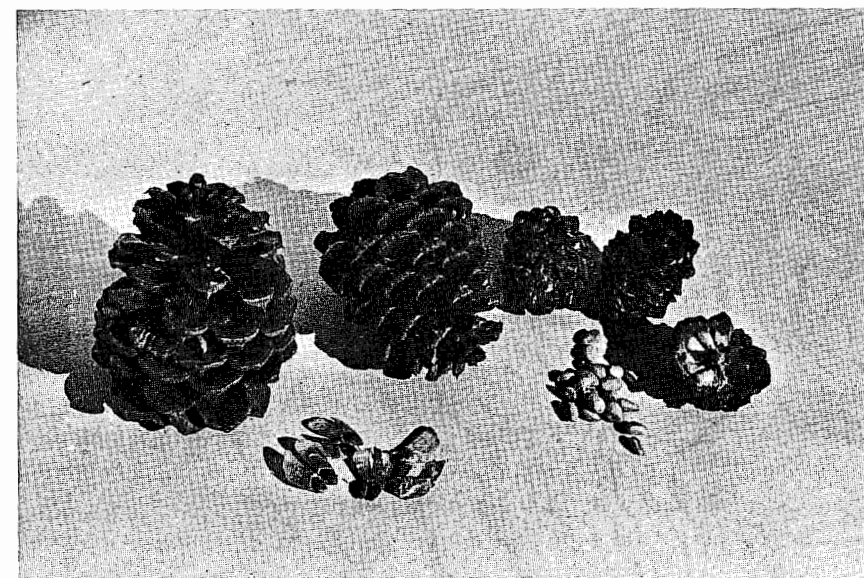


Fig. 23. Cones and edible seeds of white-bark pine (*Pinus albicaulis*) (right) and ponderosa pine (*P. ponderosa*)—Robert D. Turner

This is a low, scraggly tree growing at timberline. It has small cones but large seeds, or "nuts", very much like the pinyon pine nuts of the southwestern United States. The women used to collect them in August while the men were hunting (ST). ST's grandmother used to get them. The trees were shaken and the cones fell to the ground. The seeds were then gathered from the cones and stored to be eaten at any time of the year "just like peanuts" (ST).

The Southern Okanagan gathered these seeds in September, at the head of the Twisp River. Teenaged girls climbed the trees and threw down branches bearing the cones. If the whole cones were harvested, they were dry-baked in an earth-oven overnight and dug out early in the morning, care being taken not to get dirt on the cones. These were then laid out on tule mats and rolled with pressure under the open palm to free the nuts (seeds). These nuts were then left in the sun for the rest of the day and stored for winter in tule sacks (Spier 1938:28). The seeds have virtually the same taste as those of ponderosa pine (ST).

Lodgepole Pine, or Jackpine (*Pinus contorta* Dougl. ex Loud.)

kwekweli7t (ST; ML; Lerman 1952-54)

edible cambium: ts'ixwi7 (ST) (also that of *P. ponderosa*); some informants say it is more properly called ts'exwi7uselexw, the name for the cambium of any tree other than that of ponderosa pine (ML; WA; LA)

to go to obtain edible cambium: ts'exwts'ixwi7m (AL)

inside bark: stk'akw'lekwtisn (WA; LA) (akw' 'scrape')

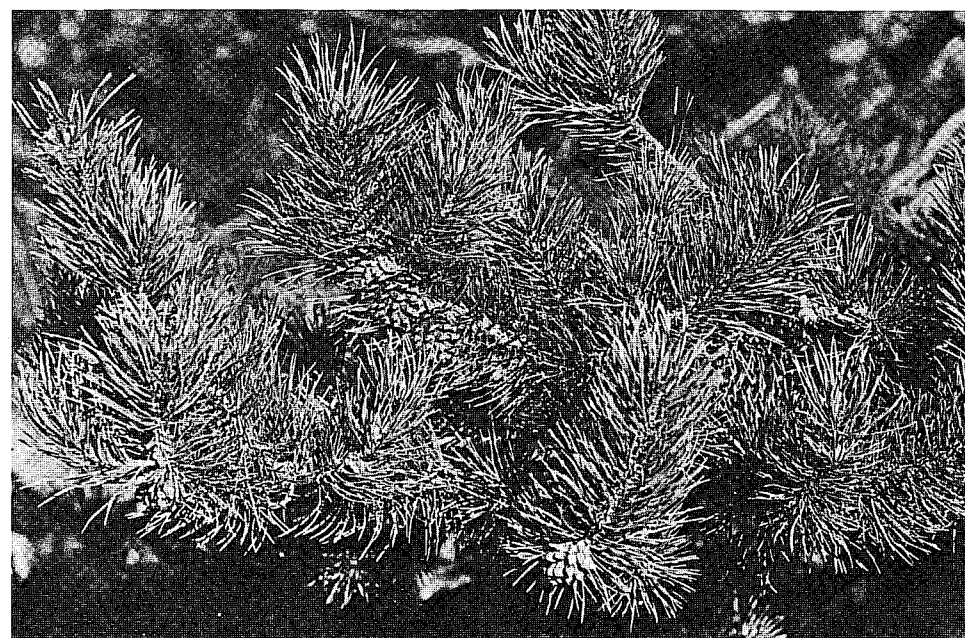


Fig. 24. Lodgepole pine (*Pinus contorta*)—Robert D. Turner

The cambium layer was eaten in the spring, like that of ponderosa pine. It is usually ready to eat about two weeks later than that of ponderosa pine. If it is gathered in June, the cambium sticks to the bark and can be scraped off in long strips with a deer-rib scraper, after the bark is removed from the tree. If one tries to get it earlier, it has to be scraped off the wood. The blooming of locoweed (*Astragalus miser*) is an indication that the cambium is ready to harvest. Some people use this plant to wipe the juice from the bark before the cambium is scraped off (ST). The ripening of the pollen cones of lodgepole pine is another indication that the cambium is ready (ML; HR). The cambium is

sweet and juicy, but was not as popular as that of ponderosa pine. As well as being a food, the cambium is said to be a good medicine for stomach troubles such as ulcers. For this purpose it can be scraped off and eaten at any time of the year (ML; WA; LA). Grizzly bears often rip off the outer bark of this tree and eat the cambium (ST).

Young pines were used to make teepee poles, as the common name suggests (Spier 1938:37-40). The Lakes people sometimes removed the bark from the upper part of "black pine" (LP uses this term to refer to a mature lodgepole pine, but AL uses it to refer to a mature ponderosa pine — see page 32) and folded the strips together to form a temporary container. A willow hoop was placed inside to stiffen the container. These containers were made on berry-picking expeditions into the hills and were usually discarded after being used because they dried up and cracked after a short time. They were called "klhk'w'alekw" (Elmendorf 1935-36; AL) or "silhk'w'ikn" (Ray 1932:37; AL).

The tops of the young trees were boiled and the "tea" drunk as a tonic for aches and pains which came during the damp weather of spring (Watkins 1970:31). Sap from the bark of young trees was boiled for ten minutes and the "tea" was drunk in place of water to cure ulcers (ML). The pitch was mixed with deer fat or bear grease to make a salve for sores and aching muscles (Watkins 1970:32). The pitch of one type of pine was sucked, and the juice swallowed, for a sore throat (ML). A strong tea of the needles was drunk by a woman to bring about an abortion (Spier 1938:166). To bring rain, lodgepole pine was placed in a basket of water, and to stop rain, pine cones were burned in the campfire. To summon wind in hot weather, needles from the top of the tree were charred and thrown into the air because a breeze was first indicated by motion of the uppermost needles (Ray 1932:214).

ML applied the name "kpagp'aglekw" (lit. 'grey-coloured wood') to two specimens of pine — one of lodgepole pine, and one of a tree without cones, possibly white-bark pine. Both were at high elevations [about 1 500 to 1 800 metres (5,000 to 6,000 feet)]. ML knew of no use for "kpagp'aglekw" — this term may actually be a general one for any stunted pines growing at high elevations.

A place between Republic and Omak, on the west side of Strawberry Mountain and the north side of Moses Mountain meadows, is called "a7klh-kwekweli7t" ('place of lodgepole pine') (ML).

White Pine (*Pinus monticola* Dougl. ex D. Don)

tl'i7alekw (AL; LP; NF) (tl'iyi7 'bark canoe') lit. 'bark canoe wood'; tl'i7ilhp (ML only) lit. 'bark canoe tree'; or kw'exwni7lhp (ML only) (kw'exwáp 'sliding along lengthwise') lit. 'sliding-along-lengthwise tree'

This tree was identified from ML's description and from a sample of the cone. ML described it as a tree similar to grand fir, but with long cones and smooth, whitish-grey bark without pitch blisters. Its trunk may grow up to four feet in diameter. ML stated that the needles were arranged like those of grand fir, and were flat and only 2.5 centimetres (one inch) long, characteristics which certainly do not match those of white pine needles, but since he correctly identified the cone, he must have been mistaken concerning the needles.

This pine grows in the Arrow Lakes area; the Native names for the tree are derived from its bark formerly being used by the Lakes people to make sturgeon-nosed canoes (AL; ML; LP).

Ponderosa Pine, Yellow Pine, or Bull Pine (*Pinus ponderosa* Dougl. ex Loud.)

mature tree: s7atkwlhp (ST; ML; Lerman 1952-54; Dumbeck 1945; Ray 1932:103; Elmendorf 1935-36)

young tree: sesa7tkwlhp (ML; LPR)

pine seeds: sk'awk'ew (ST; Spier 1938:28; Teit 1930:239; Ray 1932:104) (see also *P. albicaulis*)

edible cambium: ts'ixwi7 (ST; ML; WA; Spier 1938:30; Teit 1930:239; Elmendorf 1935-36) (also that of *P. contorta*)



Fig. 25. White pine (*Pinus monticola*)—Robert D. Turner



Fig. 26. Ponderosa pine (*Pinus ponderosa*)—Nancy J. Turner

AL uses the English term "black pine" when referring to a mature ponderosa pine, but LP uses it with reference to a mature lodgepole pine (see page 29); however, both AL and LP call an "old" ponderosa a "yellow pine".

Ponderosa cambium was eaten, like that of lodgepole pine. Some people (LP being one of them) prefer the cambium from ponderosa pine to that of lodgepole. Apparently the ponderosa cambium "ripens" about two weeks earlier than does that of lodgepole pine and is of a harder consistency (ST; HR). LP demonstrated how to obtain cambium from a ponderosa pine: he cut through the outer bark with an axe, shaping a rectangle which was then pried from the tree by means of a sharpened sapling [formerly a special, long wooden knife was used for this purpose (Spier 1938:28)]. The bark was then laid on the ground and the inner cambium wiped clean with spring sunflower leaves. The transparent cambium layer was easily peeled off with a dull knife [formerly this knife was made from a deer rib (Spier 1938:28)] and eaten immediately. Some people wipe off the bark with grass (Elmendorf 1935-36) or with locoweed (ST). The Southern Okanagan laid the cambium, as it was harvested, on a "long pine grass" called "qūaqūaqūnī'lp" (see Unidentified Plants, page 144) (Spier 1938:28). Formerly the cambium was stored for a short time by wrapping it in pine bark and grass (Spier 1938:28). The Lakes people liked to tie knots in the cambium and bite these off as they were eating it (Elmendorf 1935-36). Pine cambium had to be eaten the same day it was harvested, for it soon loses its moisture and sweetness (Spier 1938:28), but today, it can be stored successfully by freezing it (LP; NF).

Cambium was generally collected from young pines, before they had cones (NF; CP). It was said to be ripe when the pollen cones of Douglas-fir were shedding pollen (ST; WA). Ponderosa cambium was best gathered during June, particularly from trees affected by brooming (LP). It was believed to be a good stomach medicine as well as a food (WA). In fall, the seeds were gathered and eaten like nuts. They were collected from the ground after the cones had opened, allowing the seeds to drop out. They were usually eaten fresh, but could be stored (LA). The hard, red pitch was used as chewing gum (WA; NF; CP; Elmendorf 1935-36). Children used to chew on the green buds and suck the juice, but a pregnant woman should never chew on them or it would cause a miscarriage (LA).

Formerly the outer bark was saved when the cambium was being collected and was rolled up and stored to use as roofing on winter houses, as containers, as trays and platters for meat and other food, and as fuel and lining for underground cooking pits (Elmendorf 1935-36).

Ponderosa pine wood was sometimes used to make dugout canoes (Spier 1938:56; LP; AL). It was also used to make cache poles and for general construction (Lerman 1952-54). The top section of the last year's growth was dried and used as a drill in fire-making; it burned well because it was so pitchy. The wood was used for the base or "hearth" (Lerman 1952-54). The needles were used as tinder (Ray 1932:29) and as insulation for underground storage pits (ML). The pitch was used to cover and cement fish spears (Lerman 1952-54), to cement feathers onto arrow shafts (ML), and to caulk and waterproof bark canoes (Elmendorf 1935-36). The rotten wood was good for smoking deer hides (LA).

As a medicine, ponderosa pine is very versatile. The soft, white pitch is used to poultice boils. It is said to "suck out the poison" (HR; LA). It was mixed with grease and rubbed on a baby's skin. It was good for the complexion and the smell made the babies sleep soundly (Lerman 1952-54). The new growth from the tops of young trees was collected, stripped of its needles, and boiled to make a pitchy drink for those with high fever or internal haemorrhaging (Lerman 1952-54; ST; WA). The patient would drink this all the time, just like water, until the bleeding stopped. ST's grandfather had internal haemorrhaging for an entire summer. Her grandmother made this medicine for him. The pitch rose to the top and settled around the edge of the pot like grease. Her grandfather drank it for about one month, and by the following spring he was back to normal. The spring buds were dried and two or three steeped in boiling water to make an eyewash. This was put into the eyes in the

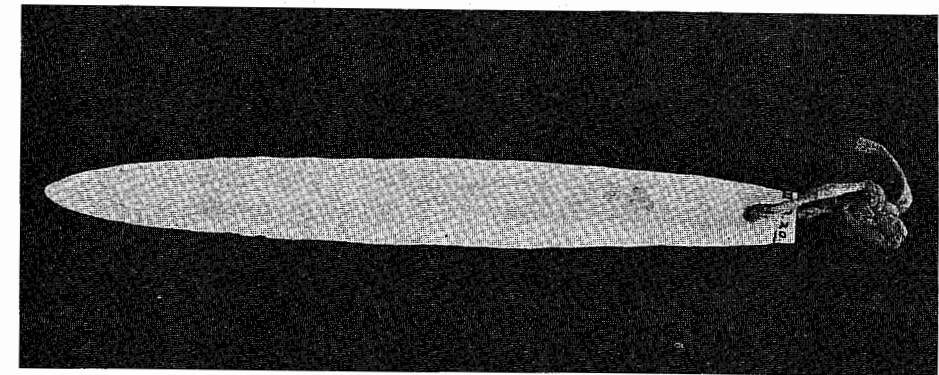


Fig. 27. Okanagan knife for cutting pine bark to remove the cambium—D. I. D. Kennedy (Nat. Mus. of Man, Ottawa, artifact II-B-20)

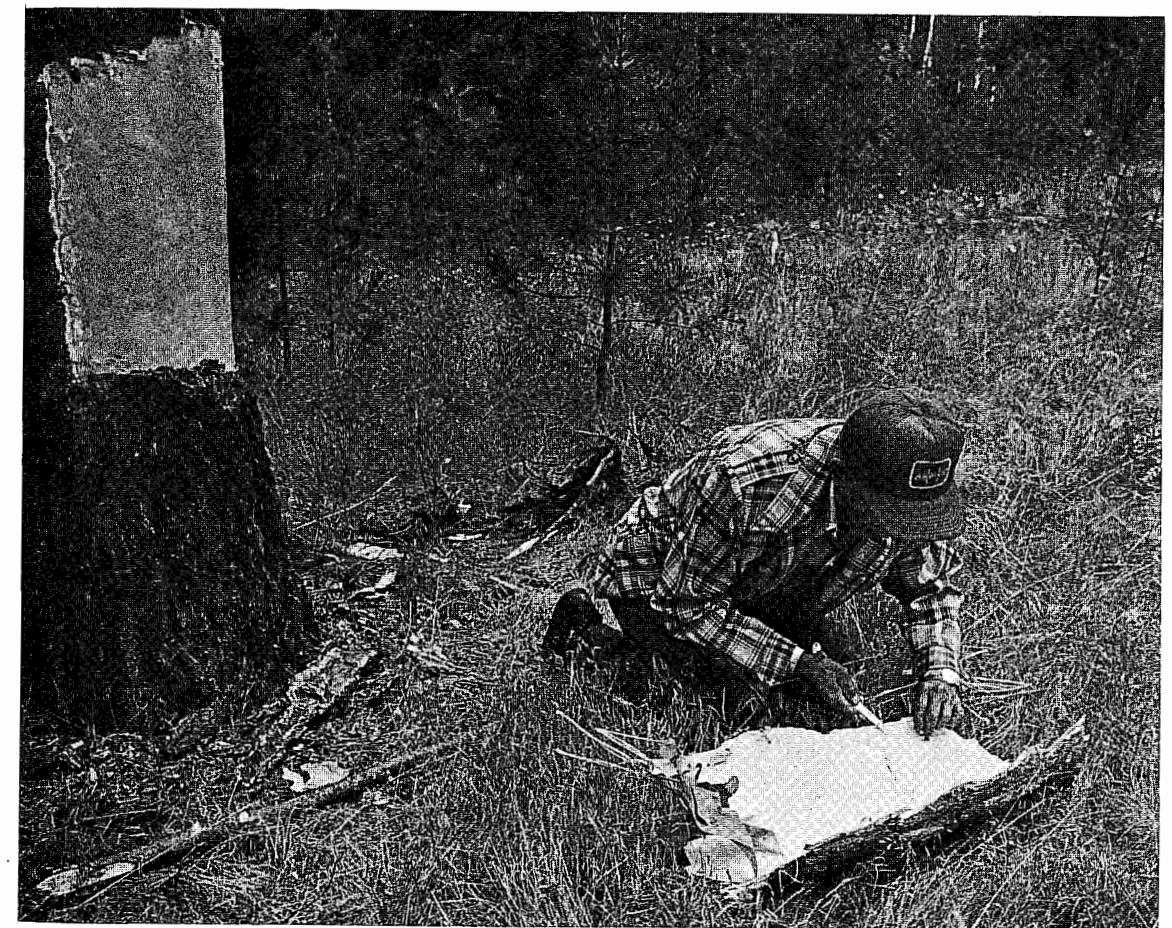


Fig. 28. Louie Pichette peeling cambium from ponderosa pine—D. I. D. Kennedy

evening and was said to draw out the poison in sore or infected eyes (WA; LA). If a mother's milk failed to flow after childbirth she was given hot broth of meat or fowl and heated pine needles were placed on her breasts (Ray 1932:127). The needles spread on the floor of the sweathouse were said to help fight off "plhax" or "witchcraft" (ST). The bottom ends of ponderosa pine cones were set on fire and the smouldering cones thrown into the air in the direction of rain clouds to make rain stop (NF; CP; LP).

Long ago, in mythical times, Mosquito was a monster who ate animals. The animals set up a number of pine needles (presumably of this species). When he was full of blood he settled down on these and they pierced his body and destroyed him (Elmendorf 1935-36).

A certain hilltop about 24 kilometres (15 miles) west from Penticton, south of Summerland and east of Roddy Flats, is called "k'a7tkwlpikn" ('ponderosa pine on the ridge') (ST; ML). A flat area, now inundated, north of the former mouth of Barnaby Creek, is called "ns7atkwlp" ('having ponderosa pine') (Bouchard and Kennedy 1979).

Douglas-fir (Interior variety) [*Pseudotsuga menziesii* (Mirb.) Franco var. *glauca* (Beissn.) Franco] tsk'ilhp (ST; ML; Lerman 1952-54; Dumbeck 1945)

young Douglas-fir: tsetsk'iha7p (ST; ML)

fir boughs, or any conifer boughs: kwiltsen (ST; ML; HR; LP)

Douglas-fir sugar: skamálhk (ST; ML) (ke7im 'breast/milk'; -alh 'fruit'); or skamápts'akn (-ts'akn 'coming out from the top') (Lerman 1952-54; ML; LA; WA)



Fig. 29. Douglas-fir (*Pseudotsuga menziesii*)—Nancy J. Turner

Indian people know this tree simply as "fir". During the hottest part of the summer, in certain localities, the fir branches exude a white crystalline sugar having a high concentration of a rare trisaccharide called melezitose (see Davidson 1919:9). A person finding this substance is said to be very lucky. It was usually eaten immediately, although if enough was found it could be collected and taken home (ML; ST; Teit 1930:239). It was sometimes mixed with black tree lichen to sweeten it (Lerman 1952-54). It could also be mixed with balsamroot seeds. The term "skamápts'akn" is

considered to be better than "skamálhk" for the sugar (ML; LA; WA). A similar term, "skamálekw" (-álekw 'wood'), refers to a tree with sugar on it or to one with ripe pollen cones in spring (ML).

Fir was used to make teepee poles, spear shafts, and other items (ML; Spier 1938:55). The wood of a fir affected by brooming (caused by mistletoe or phytogenesis) is said to split the straightest (LP). The boughs were used as roofing for temporary shelters and for bedding, especially for bereaved persons. It is said that when a widow or widower sleeps on fir boughs, the boughs turn yellow by morning; when they stay green overnight, the period of mourning is over (Lerman 1952-54). The Lakes people used fir boughs, with the ends stuck in the earth, as under-flooring for their winter houses. The boughs were covered with a layer of bunchgrass or "timbergrass" and finally with "rush" mats (probably cat-tail) (Elmendorf 1935-36). Fir boughs were placed on the ground under a freshly-killed deer while it was being butchered (AL). Fir needles, steeped in cold water in which cedar roots were soaking, give a yellow colour to the roots (Lerman 1952-54). They were also dried and powdered and mixed with marrow to make a hair tonic (Lerman 1952-54).

Boughs of young firs were used to cover the floor of the sweathouse. They were never burned, but carefully piled outside after use. They were also used to scrub the body during a sweatbath. They impart a nice smell and make the skin really clean (ST; LPR). Bereaved persons scrubbed themselves with fir boughs as a purification ritual. A wash water for sweatbathers was made by boiling bundles of fir boughs alone (NF) or with bundles of cedar and rose branches and a bit of stinging nettle. This was used to wash the skin and hair and was also drunk as a tea during sweatbathing (ML; WA; NF). A medicine for high fever and anaemia, accompanied by loss of weight, energy, and appetite, was made by boiling the first-year growth shoots. The resulting tea was drunk four or five times a day. It acted as an emetic. The outer bark was also boiled as a medicine (Lerman 1952-54). On one occasion, ML chewed the branch tips as a remedy for an allergy caused by his touching water hemlock (*Cicuta douglasii*).

A certain hillside on the east side of Franklin D. Roosevelt Lake about 19 kilometres (12 miles) north of Inchelium is called "ntsk'elhpink" ('having Douglas-fir on the sidehill') (ML) and another place on the east bank of the Okanagan River near the bridge on Highway 97 north of Oliver is called "a7klh-tsetsk'lhpu's" ('place of Douglas-fir on the edge') (ML; Lerman 1952-54). An area near Whitestone, and the small stream running through it, are called "tsk'elhpita7kw" ('Douglas-fir in a small stream'). An area now inundated along the Columbia River, just northeast from what is presently called Sand Island in Franklin D. Roosevelt Lake, was called "ktsek'tsek'lhpa'ks" ('lots of Douglas-fir on the point') (Bouchard and Kennedy 1979).

Yew Family (*Taxaceae*)

Western Yew (*Taxus brevifolia* Nutt.)

nekwnúkw (NF; Ray 1932:52); or tskwink ('bow') (LP).

Yew occurs in only a few localities in Okanagan-Colville territory. One term for it is derived from the former use of the hard wood for making bows (LP). NF's mother made a sunburn ointment from yew-wood scrapings and vaseline. The dry wood was ground and mixed with fish oil to make a red paint (Ray 1932:52).

FLOWERING PLANTS — MONOCOTYLEDONS

Arum Family (*Araceae*)

Skunk Cabbage (*Lysichitum americanum* Hultén & St. John)

stámu7kn (ML; NF; CP; LP; Elmendorf 1935-36) (tumm 'to suck'; -kn 'top/head') lit. 'sucking at the top'

Grizzlies and black bears like to suck the yellow flower stalk, or "club," of the flower. They like the taste; they suck and pull on it at the same time. Thus, one can tell if bears have been around by looking for the half-eaten flower stalks of skunk cabbage. The plant is named after this feature (ML). The large, flat leaves were often used in pit-cooking, especially if bracken fern fronds were not available. They were placed over and under the food in the steaming pits (ST; ML; NF; CP).

Sedge Family (Cyperaceae)

Mountain Sedge (*Carex concinnoides* Mack.)

A specimen of this plant was identified by ST as "timbergrass" (called "t'akwlhp" in Northern Okanagan), used in pit-cooking and for various household purposes. However, it seems likely that the term "t'akwlhp" is more commonly applied to pinegrass (*Calamagrostis rubescens*), a true grass of upland forests.

Spike Rush [*Eleocharis palustris* (L.) R. & S.]

yúyma (HR)

This rush grows in swampy places; it is common around the Chopaka Indian Reserve near Keremeos. People used to cut it with scythes and use it as bedding, for pillows, and for sitting on in the sweathouse (HR).

Tule, or Bulrush (*Scirpus acutus* Muhl. ex Bigel.)

tekwtáñ (also refers to a tule mat) (ST; ML; Lerman 1952-54)

"teepee" of tule: stekwtñilhxw (ST; WA; LA) (tekwtáñ 'tule'; -ilhxw 'dwelling')



Fig. 30. Tule (*Scirpus acutus*)—Nancy J. Turner

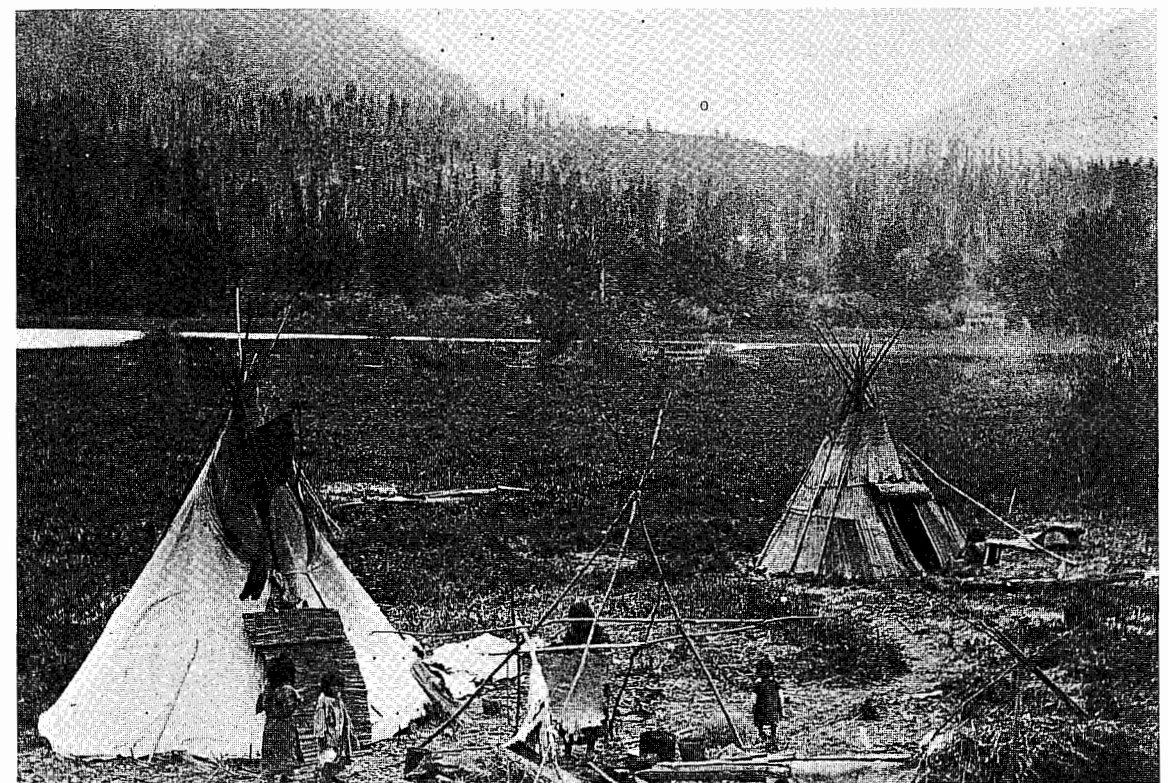


Fig. 31. Tule-mat "teepee" (right) and door-flap—Photo by Wilse (Thomas W. Prasch coll., Suzzallo Library, U. of Wash.)

Tule stems, after they had turned brown in November, were gathered from swamps and the edges of lakes, dried, cut into lengths, laid on the ground, alternating top and bottom, and sewed into large mats with Indian hemp twine. These were used to make "teepees", for temporary shelters, for doors and window-flaps, for drying berries on, and for cutting and drying meat and fish on. For teepee coverings they were woven very closely; one could see air spaces between them in dry weather, but when it rained they expanded and the matting became waterproof (ML; ST; Lerman 1952-54; Spier 1938:37). They were also woven into storage bags and used to make headdresses for Indian doctors (ML; ST). For bags they were often woven with some other fibre, such as silverberry or willow bark, or Indian hemp (Spier 1938:63; Ray 1932:36). These bags were used to store dried foods including meat, fish, and berries (LA; WA). A piece of tule stem was folded back and forth upon itself to make a small ball used in a type of "ball and pin" game, in which a thorn of red hawthorn was the pin (Ray 1932:161).

"Cut-grass" (*Scirpus microcarpus* Presl.)

xatpewítsiya7 (ML; HR; LA) [xtap 'a clean cut' (LPR) or 'accidental cut' (AL; SL)];

xetxatpewítsiya7 (AL; NF; Spier 1938:237)

This plant grows near lakes and running streams (ML). It was used for weaving berry-picking and root-digging baskets, although these did not stand up to heavy use. It was also woven into buckskin dresses as trimming, to make a fringe (ML). Like rye grass, it was sometimes used to place over and under food in steaming pits (LA). In a certain Coyote legend, a woman who was seduced by Coyote used this sharp-edged "grass" to cut off the end of his penis (HR; Bouchard and Kennedy 1979; Spier 1938:237). It is considered to be closely related to "kw'eskw'ás" (see *Sparganium eurycarpum*), and occasionally our informants confused these two plants.

Rush Family (Juncaceae)

Rush (No. 1) (*Juncus effusus* L.)

sk'ek'ewixíst'iya7 (WA only) (k'iwlx 'old') lit. 'old grass'

WA knew of no use for this rush, other than as feed for horses.

Rush (No. 2) (*Juncus ? mertensianus* Bong.)

nk'w'ekw'ikw'ágýkn (ML only) lit. 'having little black tops'

This plant was used for "witchcraft", or "plhax" (ML). The specimen was too immature to identify positively.

Lily Family (Liliaceae)

Nodding Onion, or Wild Onion (*Allium cernuum* Roth.)

xeliwa (Teit 1930:238; Lerman 1952-54; Gabriel 1954:29); sehágykw' (ST; ML; NF; CP; Griva 1902); kweláwi (ML; AL; LP; Ray 1932:100); kweliwa (ST only)

The term "sehágykw'" is also used to refer to garden onions (*Allium cepa* L.) (LP; NF; CP). The wild ones grow over a wide range throughout Okanagan-Colville territory. They were dug from April to June, depending on the elevation, just before the plants flowered. One had to be careful not to confuse them with "poison onions" (*Zigadenus venenosus*), which have similar bulbs but no onion smell.

When the onions were harvested the leaves were left on, to be braided together later for cooking the bulbs. The bulbs were rolled on mats to remove the dirt and outer skins (Spier 1938:27). The Sanpoil (CP) and Southern Okanagan (Spier 1938:27) ate them raw, but others cooked the bulbs in steaming pits. A layer of "timbergrass" was placed under them in the pit, and layers of rye grass and "timbergrass" overtop. The steaming pit was the same as that used for black tree lichen; in fact the two foods were often cooked together. The onions were usually cooked overnight. By morning they were sweet and brown (ML; ST). They could be eaten immediately, each person removing the outer skins as he ate (Spier 1938:27), or strung and dried for winter. They were reconstituted by soaking in water overnight or by boiling. Either way they were said to be delicious (ST; ML). The Southern Okanagan pressed the cooked onions into little thin cakes and dried them. These were reconstituted by sprinkling with water and rolling them on a mat until soft, before being eaten (Spier 1938:27). Spier states that they were never boiled nor mixed with other foods. For the Northern Okanagan, these onions were not as important a food as bitter-root, but were very popular (ST).

Douglas' Onion (*Allium douglasii* Hook.) and/or Geyer's Onion (*Allium geyeri* S. Wats.)

saxk (ML; ST; NF; CP; Ray 1932:100; Elmendorf 1935-36)

This plant has been identified as *A. douglasii* from a specimen gathered in Spokane territory by R. May; the cognate term "sehč" was used by Spokane informants to refer to this specimen (R. May, pers. comm.—his transcription). However, NF and CP each have identified a colour photo of *A. geyeri* in bloom as "saxk". On the other hand, the cognate Nez Perce term "se.x" has been identified as referring to *Allium* spp. (Marshall 1977—his transcription). *Allium douglasii* and *A. geyeri* are very similar plants; the main distinguishing feature is a criss-cross fibrous coating on the bulb of *A. geyeri* — this coating was not present in the specimen gathered by R. May. It is likely that the term "saxk" refers both to *A. douglasii* and *A. geyeri*.

The bulbs were dried and pit-cooked, either mixed with black tree lichen to provide flavouring (ML; NF; CP; Ray 1932:100), or along with "black" camas (ML; Elmendorf 1935-36). Ray



Fig. 32. Nodding onion (*Allium cernuum*)—Robert D. Turner

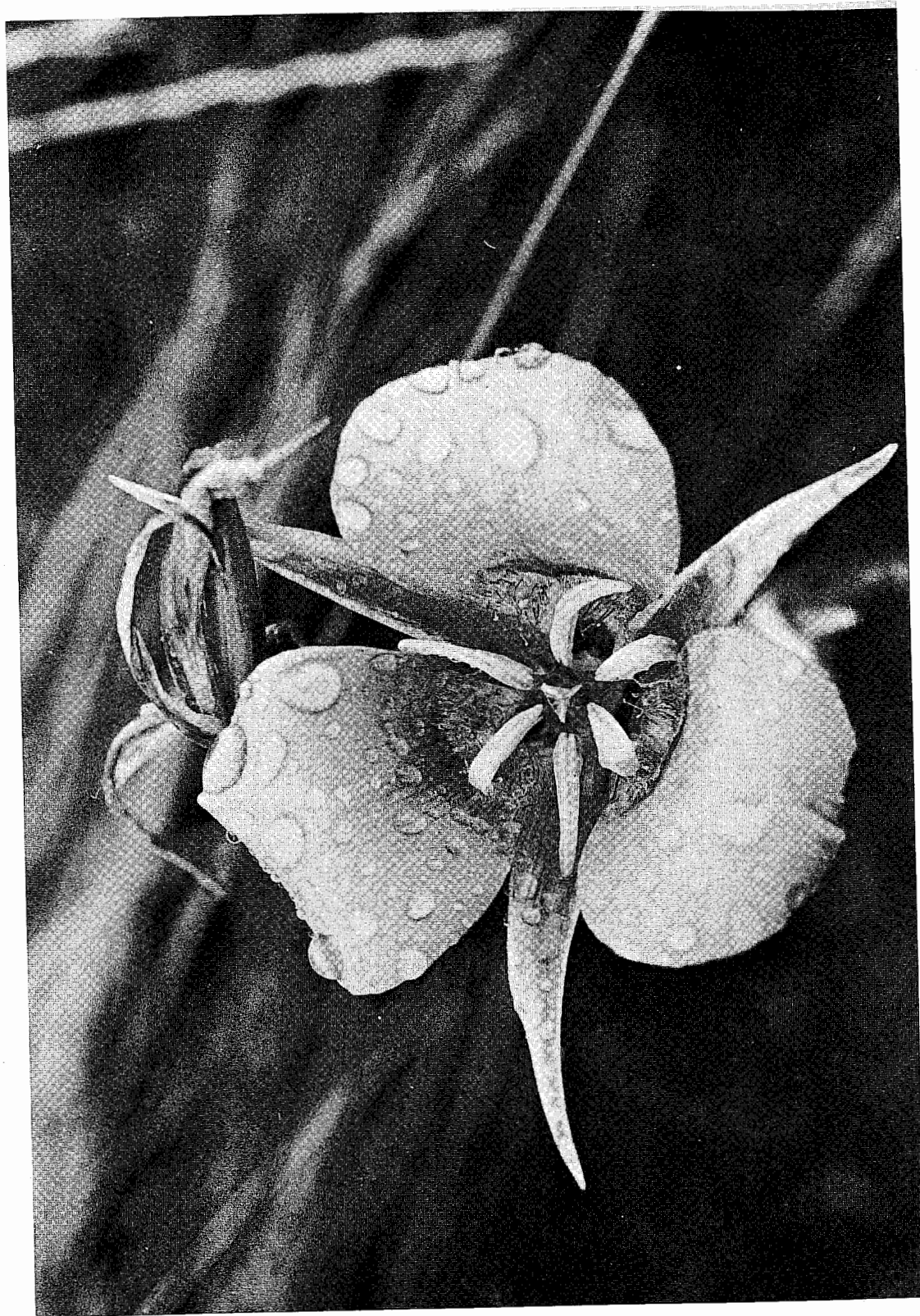


Fig. 33. Mariposa lily (*Calochortus macrocarpus*)—Robert D. Turner

(1932:100) describes "saxk" as being "doubtfully a camas" and Elmendorf (1935-36) calls it "sweet camas". "Saxk" is picked in May and June [Ray (1932:100) states it was picked only in June] by the Sanpoil and the outer covering is removed from the bulbs before they are dried (NF; CP).

Asparagus (*Asparagus officinalis* L.)

snPELLiws (ST) (pelál 'to grow'; -iws 'middle') lit. 'grows amidst (other plants)'

The above name is a general term for various types of weeds, including lamb's quarters (*Chenopodium album*). Asparagus was introduced from Europe as a vegetable but has gone wild in many places in the Okanagan Valley.

Brodiaea, or Fool's Onion (*Brodiaea douglasii* S. Wats.; syn. *Triteleia grandiflora* Lindl.)

sxexilyem (ML; LA; Teit 1930:238)

This plant is identified on the basis of ML's and LA's description, and from the cognate name, "sxi7iyem" for *B. douglasii* in the Thompson language (Turner 1973; Steedman 1930:482). ML described it as being similar to "black" camas (*Camassia quamash*) and mariposa lily (*Calochortus macrocarpus*), having long, light-blue, bell-shaped flowers that turn upwards. He said it was also like "poison onion" (*Zigadenus venenosus*), that it grew in the same places as *Zigadenus* and, like this plant, was considered poisonous. In fact, *Brodiaea* corms are edible, and were likely formerly eaten by the Okanagan-Colville.

Mariposa Lily, or Desert Lily (*Calochortus macrocarpus* Dougl.)

yekw'yúkw'ps (ST; ML; HR; Spier 1938:30; Teit 1930:238; Gabriel 1954:25; Elmendorf 1935-36)

This plant is often called "sweet onion" by Indian people. The bulbs were dug in the spring before the plants flowered and were eaten raw or pit-cooked with other roots to add flavouring. They were often harvested with bitter-root (ST; HR; WA; NF; Spier 1938:26). They have a sweetish, starchy taste (Elmendorf 1935-36). Recently the bulbs were steamed (Spier 1938:26). The bulbs were mashed and applied directly to the skin as an antidote for poison ivy (LA; NF).

"Black" Camas, or Blue Camas [*Camassia quamash* (Pursh) Greene]

ítxwa7 (refers to the bulbs after they are cooked) (ST; ML; NF; CP; LP; Spier 1938:30; Teit 1930:238; Dumbeck 1945; Elmendorf 1935-36)

patch of camas: n7ítxwa7m (Elmendorf 1935-36; NF; CP; LP)

bulbs when first dug, before cooking: sxwalítxwa7 (ML; NF; CP; LP; Ray 1932:99)

There are several edible "roots" called camas by the Okanagan-Colville (see *Lomatium* species and *Allium douglasii*). *Camassia quamash* is commonly called "black" camas because the bulbs turn black when pit-cooked. It grows mainly in Washington; the British Columbia peoples, except the Lakes (Elmendorf 1935-36), had to get it through trade. Sometimes they exchanged bitter-root for it. The Sanpoil-Nespelem considered "black" camas even more important than bitter-root as a food (Ray 1932:98).

In the Sanpoil area, "black" camas is still dug at Meadow Creek, which is called "a7klh-í7txwa7" ('small place with ítxwa7'). It is also dug at Friedlander Meadows, "xexp'út" and, formerly, was dug at another meadow slightly north from there called "skelúm", as well as at the Beaune Ranch area, "skwixmn", about 18 kilometres (11 miles) north up the west side of the Columbia from the mouth of the Spokane River. 'Katkágt', a place just west of Davenport, is also a digging area for "black" camas. Formerly it was also dug at "nwestink", a sidehill area west of



Fig. 34. "Black" camas, or blue camas (*Camassia quamash*)—Robert D. Turner



Fig. 35. Cecelia Pichette (left) and Nettie Francis placing "black" camas in a cooking pit; note lining of skunk cabbage leaves—D. I. D. Kennedy



Fig. 36. "Black" camas after pit-cooking—D. I. D. Kennedy

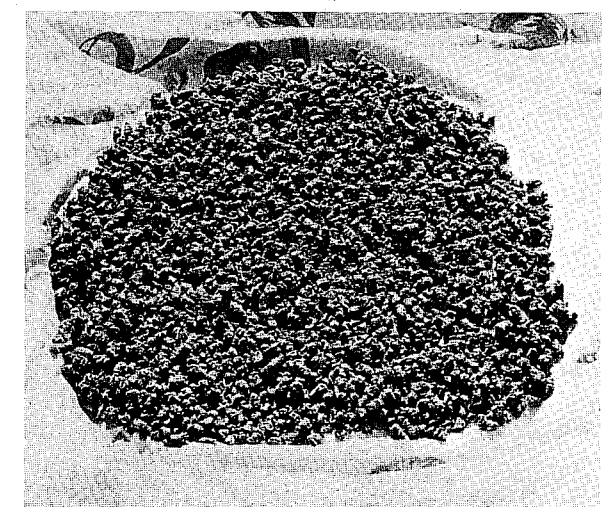


Fig. 37. "Black" camas, cooked, ground, and spread to dry; prepared by Nettie Francis and Cecelia Pichette—D. I. D. Kennedy

the bridge at Kettle Falls, where, according to AL, it had been transplanted by Colville Indians sometime in the early 1800's. AL states the Colville obtained these bulbs from the Kalispel. However, LP believes that the origins of the "black" camas growing at "nwestink" are mythological; Coyote was going past here and he threw some black camas on the hillside (Bouchard and Kennedy 1979).

"Black" camas bulbs were usually dug just after the plants flowered in early summer. Elmendorf (1935-36) notes that the Lakes liked to harvest them during flowering time, although he states they could be dug throughout the year. Present-day Sanpoil informants, however, state that the pit-cooked camas would be "mushy" if harvested while the plant was in bloom (NF; CP). A good day digging "black" camas often yielded as much as a bushel of bulbs (Ray 1932:98). NF's mother-in-law used to dig "black" camas as late as the end of September; at that time, she was able to locate the bulbs by the appearance of new shoots which apparently began growing around the end of August.

"Black" camas bulbs were usually pit-cooked, often with other foods such as black tree lichen, although Ray (1932:99) records that the raw bulbs could be pulverized in a mortar, shaped into cakes, and dried. The method for pit-cooking the bulbs was similar to that used for black tree lichen (see pages 10-15), although these bulbs were left to steam longer, for about three days. A fire was lit over the pit each morning and evening. When black tree lichen and "black" camas were cooked together in the same pit, the lichen was covered separately so that it could be removed from the pit without disturbing the camas. If not thoroughly cooked, the camas would be pale and hard. Formerly, "black" camas was "sweetened" while it was being pit-cooked by sprinkling a handful of dry ponderosa pine needles over the bulbs. Nowadays this sweetening is accomplished by placing handfuls of alfalfa immediately below and above the bulbs (NF; CP) (see also page 105). When pit-cooking "black" camas, the people took great care that every last bulb was placed in the cooking pit, for it was believed that if one bulb was left out it would call to the others that it was "lost" and the camas in the pit would not cook. This belief applied to both "black" and "white camas" (*Lomatium canbyi*) (NF; CP).

According to Hart (1976:17), recent experiments at the University of Michigan have demonstrated the importance of the pit-cooking process in increasing the digestibility of this camas. The bulbs have long been known to contain inulin [this is mistakenly called "insulin" in Hart's discussion], a non-reducing sugar which is apparently largely undigestible. However, with prolonged cooking, the inulin has been found to break down into fructose, a sugar which is easily digestible. The concentration of fructose in cooked camas is as high as 32.9% of the wet weight or 43% of the dry weight.

After pit-cooking, the "black" camas (now soft, dark, and sweet) is either dried, ground and mixed with flour, water and a bit of butter to make a "gravy", or boiled with dried bitter-roots (NF). The whole bulbs are stored after being dried thoroughly, then boiled before being eaten (CP; NF). Elmendorf (1935-36) noted that bulbs of "black" camas could be spread for storage on a frame made in the rafters of a house or stored in pits. Those bulbs stored in the ground all winter were said to be neutral in flavour compared with those stored up high. The former were mixed with other foods such as hazelnuts and bear grease and placed in animal intestines as containers. The larger "black" camas bulbs were reserved for elderly people; if young people ate them, it was believed that they would later marry an old person (NF; CP).

Fairy Bells [*Disporum trachycarpum* (S. Wats.) Benth. & Hook.]

nt'eksilt (ML only) (t'ak 'scattered or bunched grass or leaves'; -silt pertaining to 'wound or sore') lit. 'causing a leaf to be put on a sore or wound'; or nk'w'elsilt (ML only) (kw'ul 'to make, fix'; -silt pertaining to 'wound or sore') lit. 'causing a wound or sore to be fixed'

yellow-berried type: tkwerkweri7s (ST; ML) (kweri7 'yellow/green') lit. 'a bunch of little yellow/green ones' (cf. yellow violets)

blue-berried type [possibly queenscup — *Clintonia uniflora* (Schult.) Kunth.]: tkwekwikwagys (ST; ML) (kwagy 'blue/green') lit. 'a bunch of little blue/green ones' (cf. blue violets)

Both ST and ML originally stated that there were two kinds of fairy bells, one with yellow fruits and one with blue, but they must be referring to some other species such as *Clintonia uniflora*. ML stated that no plants have both colours of berries on the same individual. The berries were used for some kind of medicine, but ML did not recall the details. Later, ML applied the first terms to this species and said that the leaves were dampened, bruised, and applied directly to a wound to stop the bleeding. As a secondary treatment, the wound was washed with a tea made by steeping the leaves in hot water.

Yellow Avalanche Lily, or Yellow Dog-tooth Violet (*Erythronium grandiflorum* Pursh)
sxwixw (ST; ML; LP; Spier 1938:30; Teit 1930:238; Elmendorf 1935-36)



Fig. 38. Yellow avalanche lily (*Erythronium grandiflorum*)—Robert D. Turner

This plant is found at higher elevations, usually in rocky ground, throughout Okanagan-Colville territory. The Southern Okanagan gathered it along with "sEmárata" roots (see *Fritillaria pudica*) in the Methow Valley (Spier 1938:27). ST has not eaten "sxwixw" herself, but remembers that the old people used to eat it and that it has a bad smell. The corms were one of the first foods to be collected in the spring. They are ready in early April and May, right after the snow, and last until the end of June, or even July, in Lakes and Southern Okanagan territory (Elmendorf 1935-36; Spier 1938:27). They were said to be nearly the size of one's fist, and were described as "white clear tubes with [the] root coming out of the side" (Elmendorf 1935-36). They were boiled and then either eaten fresh (LP) or dried for later use. Drying took up to two weeks (Spier 1938:27). The dried corms were stored in tule sacks. Before they were eaten they were softened by soaking in water and the outer covering was removed (ML). As well as being a good food the corms were said to be a good medicine for a bad cold (ST).

Chocolate Lily, or Rice-root (*Fritillaria lanceolata* Pursh)

Neither ST nor ML remembered the name of this edible bulb, but Teit (1930:238) called it "smê'ta" and stated that it was one of the most important foods. Neither ML, LP or NF recognized Teit's name. ST and ML did not recall it being eaten.

Yellowbell [*Fritillaria pudica* (Pursh) Spreng.]

gá7temñ (ST; ML; WA; Elmendorf 1935-36; Teit 1930:238) (gáytemñ 'tooth') lit. 'little tooth' (referring to the bulb); or sEmárata (Spier 1938:30 — his transcription; NF, CP, AL and LP do not recognize this term)

flower: ste-wa (Dumbeck 1945—his transcription)

This flower, which blooms in April along with shooting star, is a sign that spring has arrived (ST). The small bulbs were occasionally eaten raw (ST; WA; Spier 1938:27), or, by the Lakes people, more commonly boiled alone or with meat. They were said to be starchy and taste like sweet potatoes (Elmendorf 1935-36). The Southern Okanagan people steam-cooked the bulbs in pits for about 15 minutes, then dried them on mats for two weeks. The women made trips to the dry areas around the Methow River to dig them, then dried them for storage before they returned. Several women would prepare their harvest together. When dug with the corms of *Erythronium grandiflorum*, they were prepared and eaten together with them (Spier 1938:27).

The roots of "sEmárata" are described by Spier (1938:27) as being "rough and bumpy, white and disc-shaped, two inches [five centimetres] in diameter, and 1/4 inch [about six millimetres] thick." Although Spier identifies this species as "yellowbells" and states that it has small yellow flowers, the description of the bulb more closely matches that of chocolate lily (*F. lanceolata* — see previous species), which is larger and flatter than the bulb of the yellowbell.

ML and LA described a similar plant, called "smetkwíina7", which was about twice as tall as yellowbell but alike in other respects (see Unidentified Plants, page 144).

Tiger Lily, or Columbia Lily (*Lilium columbianum* Hanson)

stextsin (ST; ML; Spier 1938:30; Teit 1930:238; Gabriel 1954:25; Elmendorf 1935-36)

bulbs: stextsenúps (ST)

This plant grows at higher elevations throughout Okanagan-Colville territory. ST's grandparents used to go up in the mountains, above timberline, to get it. The bulbs were dug by the Northern Okanagan in September, after the plants had flowered (ST). The Lakes people dug them earlier, in July and August (Elmendorf 1935-36), and the Southern Okanagan in early spring or in fall (Spier 1938:27). They could be eaten raw, but were extremely bitter. Sometimes they were boiled alone



Fig. 39. Tiger lily (*Lilium columbianum*)—Nancy J. Turner

(LP) or with saskatoons (ST; Spier 1938:27). The Southern Okanagan steam-baked them overnight, then dried them in the sun for three or four days, mashed them and spread them out in thin cakes to dry (Spier 1938:27). The cooked bulbs are white and good-tasting, but "as bitter as bitter-root". In winter, the dried cakes were boiled and put into meat soup as a seasoning (ST; Spier 1938:27). They were used "just like pepper"; ST referred to the bulbs as "Indian garlic". In modern times, the bulbs were steamed in pots, held above the water by sticks, for about 25 minutes (Spier 1938:27).

In the old days, the Colville people used to burn areas deliberately to produce better crops of tiger lilies. They grow best about two years after a fire (ML).

The dried bulbs were mashed with "stink bugs" to make a powder used against someone in "plhax" ('witchcraft') (ST; HR).

A large mountain basin about 29 kilometres (18 miles) northwest of Inchelium is called "stextsenúla7xw" ('tiger lily ground') because it has so many of these plants (ML).

False Solomon's Seal and Star-flowered Solomon's Seal [*Smilacina racemosa* (L.) Desf. and *S. stellata* (L.) Desf.]

plant: k'ixán (ST; ML; HR) (k'ay 'marked') lit. 'marked foot' (?); or t'xayápa7 (ML; AL; Ray 1932:101; Elmendorf 1935-36) (t'axt 'sweet taste')

berries of *S. racemosa*; sk'i7xnálha7k (ST; ML; HR) (-álha7k 'little fruit') lit. 'little fruit of k'ixán'

The names of the plants apply to both species. The berries were not used (ST), but the "roots" (rhizomes) of the first species were dug and dried, then soaked and pit-cooked with camas (ST; ML) or black tree lichen (Ray 1932:101) to sweeten the lichen. According to Elmendorf (1935-36), the Lakes people used the "roots" extensively, comparing them to onion sets or clustered green onions. They pulled them up, washed them, and ate them "green"; the taste was like that of onions. Sometimes the "roots" were cooked or preserved with black tree lichen (Elmendorf 1935-36). They could also be boiled in hot water to make a sweet-tasting medicine, drunk for colds or to increase the appetite (ST). People used to come to the Osoyoos area from as far as Inchelium to obtain them. A harvest of 50 to 100 pounds of the "roots" was not unusual (ST; ML).

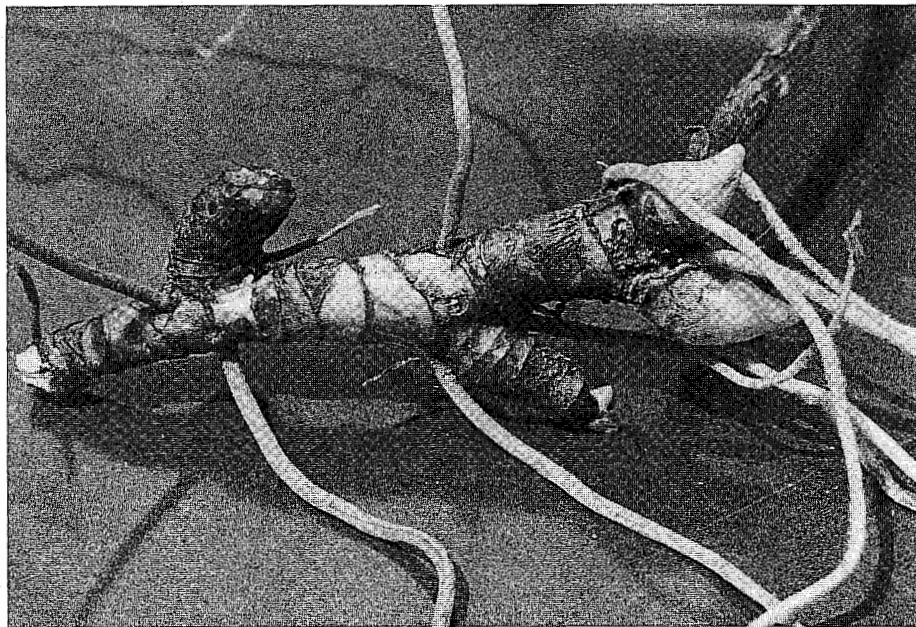


Fig. 40. Rhizome of false Solomon's seal—Nancy J. Turner



Fig. 41. False Solomon's seal (*Smilacina racemosa*)—Robert D. Turner

Round-leaved Trillium (*Trillium petiolatum* Pursh)

kmmxstína7 (NF; CP; LP); or tkmmxstína7 (ML) (skemxíst 'black bear'; -ina7 'ear') lit. 'black bear's ear'

This plant had been described on one occasion by ML, but a specimen was not available at that time. When the Indian name of this plant was mentioned to NF, she immediately provided a fresh specimen from her property. It is restricted to the southernmost part of the study area.

The roots of this plant are steeped in hot water and the "tea" drunk as an appetizer (NF).

Indian Hellebore (*Veratrum viride* Ait.)

skelík'mn (ST; ML; LA; WA; LP)

This big-leafed poisonous plant grows up in the mountains. It is recognized as a potent poison; even animals do not eat it (ST), although WA stated that if a grizzly knows a hunter is coming after him and he gets mad, he will eat the leaves so that bullets and arrows will not hurt him, because the plant acts as an anesthetic. Although it is poisonous, it was used, with great caution, as a medicine. Hunters used the leaves as a poultice on the skin for backaches. It was applied for only a few minutes. It is so strong it causes the skin to blister and become numb. The poison "goes right in and kills the germs" (ST). If the backache persists, the treatment is repeated in a couple of days, and this will certainly cure it (ST). The raw root was placed carefully on the skin to ease the pain of rheumatism or arthritis (LA; NF). Hunting dogs were "trained" by rubbing a small piece of root in each eye and on the tip of the nose (ML). Teit (1930:294) records that the root was dried, powdered and used as a snuff to cause sneezing when one has a cold, but states that the use of the plant is limited and may be recent. Mary Abel (pers. comm.) confirmed this use, stating that she had often employed this "snuff" herself as a child; it caused violent sneezing, cleared her sinuses and loosened the mucus in her nose. The plant was also used in "witchcraft", or "plhax" to jinx people; ST was told never to touch it when she was a child. A low mountain southeast from South Twin Lake is called "skelík'mn" ('small skelík'mn') after this plant (LP).

Bear Grass, or Squaw Grass [*Xerophyllum tenax* (Pursh) Nutt.]

selk'íst'iya7 (ML; AL; LP; CP; NF; Ray 1932:36; Spier 1938:63) lit. 'tie-up (weave) grass'

Ray (1932:36) stated that the Sanpoil-Nespelem imported this "grass" from the area around Cusick (in Kalispel territory) and used it as the principal material for imbricating baskets. This is verified by NF and CP, who gathered some bear grass in 1978 from the vicinity of Cusick. Their intention was to use the grass for decorating cedar-bark baskets. Spier (1938:63) records that it was gathered by the Southern Okanagan in Pend d'Oreille country in midsummer and was sometimes coloured with vegetable dye for imbrication. Apparently "selk'íst'iya7" does not grow in Okanagan-Colville territory (NF; CP; LP).

Death Camas, or "Poison Onion" (*Zigadenus venenosus* S. Wats.)

yiwístn (MP; LP; NF; Elmendorf 1935-36); or aywístn (ST) (yiwíst 'to twitch') lit. 'causing twitching'

The bulbs resemble those of wild onion, camas, and others, but are extremely poisonous. One must be very careful not to confuse it with edible types. The plant grows with the blue camas but can be distinguished from it by its outer skin which is like a grey, lacy veil (Elmendorf 1935-36). Eating the bulbs causes twitching, foaming at the mouth, and eventually death (ST; ML). The bulbs were

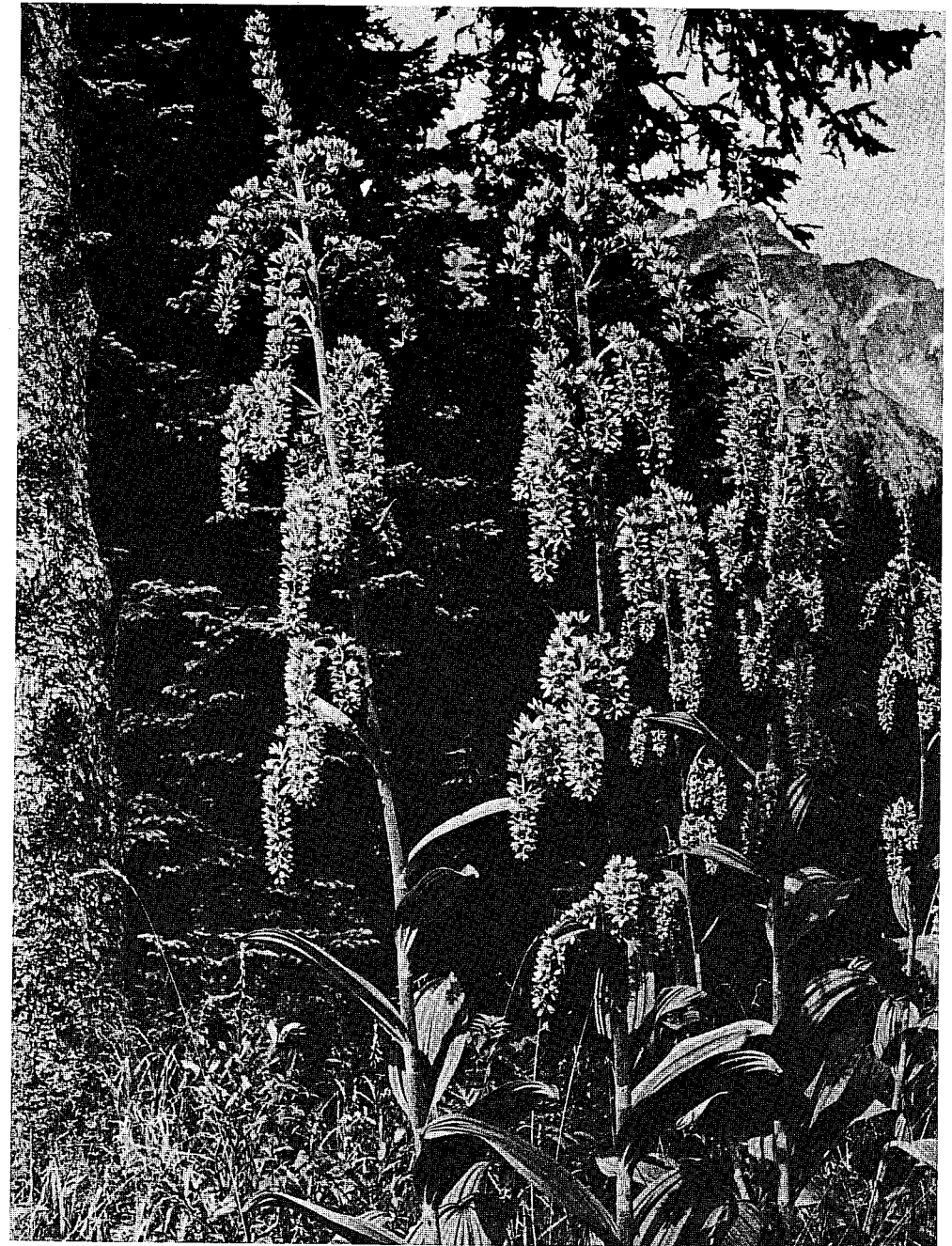


Fig. 42. Indian hellebore (*Veratrum viride*)—Robert D. Turner

formerly used as an arrow poison; they were mashed, dampened and the arrows dipped into the pulp. The arrows were said to kill the animal quickly but were apparently not harmful to humans eating the meat (ML). Horses were often poisoned by eating the stems and blossoms (Elmendorf 1935-36).

Orchid Family (Orchidaceae)

Calypso, or False Ladyslipper [*Calypso bulbosa* (L.) Oakes]

spepa7pu7ús (ST; ML) (spu7ús 'heart') lit. 'a bunch of little hearts' (see also wild ginger)

This plant was not used. The name was also applied to wild ginger because it has heart-shaped leaves (ML).

Mountain Ladyslipper, or Moccasin Flower (*Cypripedium montanum* Dougl.)

sepsíp'i7xn (LP; NF; CP) 'moccasins'; or sts'wanáytm k'axníłts (LP) lit. 'giant's baby's footwear'; or snk'lip k'axáns (NF) lit. 'coyote's footwear'

This striking plant is considered very "special" and must be treated "properly"; that is, if the plant is dug up and used, no others of this same species will grow there; the plants will "move" to a different place (NF; CP). The stalks and leaves were steeped in hot water and drunk by a pregnant woman to ensure having a small baby (NF; CP).

Rattlesnake Plantain (*Goodyera oblongifolia* Raf.)

nki7íws (ML) lit. 'split in the middle'

The leaves were gently rubbed to soften them, then split in two along the flat plane and the inside surfaces were applied directly to cuts and sores to heal them (ML). The leaves are named after the property of splitting open easily. Nowadays some people store these leaves in their refrigerator so they are immediately available when needed (Ellen Stone, pers. comm.). A woman wishing to become pregnant would split open a leaf of this plant and blow on it several times (NF).

Bog Orchid [*Habenaria dilatata* (Pursh) Hook.]

skekeikíla7xw (ST; ML) (skílexw 'Indian') lit. 'a bunch of little Indians' (ST).

This plant was formerly used in "witchcraft", or "plhax" (ST).

Grass Family (Poaceae or Gramineae)

Grass, General

swupúla7xw (ST; ML; Elmendorf 1935-36) (wap 'hair or growth'; -úla7xw 'ground') lit. 'ground hair' or 'ground growth'

The above term refers to any grass, hay, or "grass-like" plant (ST), but is sometimes applied specifically to bunchgrass (Elmendorf 1935-36). Elmendorf records that the Lakes people wove containers from grass for general storage and made loose grass mats for sitting on in canoes, but does not specify the type of grass used.

Quack Grass, or Couch Grass [*Agropyron repens* (L.) Beauv.]

This grass, a common weed introduced from Europe, has no Indian name, but nowadays is occasionally used in pit-cooking to place over and under the food being cooked (cf. black tree lichen) (NF; CP). The grass is cut when quite tall and scattered evenly over the bottom layer of dirt covering the hot rocks in the pit, forming a layer of about 18 centimetres (seven inches) thick. The food is then placed in and another layer of grass sprinkled over it.

Bunchgrass [*Agropyron spicatum* (Pursh) Scribn. & Smith]

st'iyí7 (ST; ML)

This is considered an excellent grazing grass for livestock. Deer also eat it (ST). Dry bunchgrass was used as a tinder for starting fires and for stuffing moccasins in winter, especially in wet weather (Ray 1932:47; Elmendorf 1935-36). A bunchgrass straw was inserted in a newly pierced ear (ears were pierced with cactus spines) to keep the hole open. It was twisted around once a day (Lerman 1952-54). The Lakes people spread bunchgrass over the floors of winter houses; it was placed on top of rye grass and other materials because it was so soft. It was also used in cooking pits (Elmendorf 1935-36). Bunchgrass was gathered at any time of the year and boiled to make a bathing water for sore, swollen, crippled or paralysed limbs, such as with arthritis. Hands or legs were soaked in the solution for an hour or two. "It goes right into your bones and kills the germs there" (ST). One never drinks it; it is too strong (ST; HR). ST's brother killed a doe and didn't follow the proper ritualistic procedures. As a result his legs became paralysed and he couldn't walk; "The doe hurt him." An Indian doctor told him to boil bunchgrass because "that's the deer's food," to make a weak solution and sit in it every morning and afternoon. He followed these instructions and became strong again (ST).

A certain knoll about 1.6 kilometres (one mile) up Barnaby Creek is called "st'et'i7úla7xw" ('bunchgrass ground') (ML; AL).

Oats (*Avena sativa* L.)

lawán (ST; ML) (from French "l'avoine")

Oats were cultivated by the Okanagan-Colville by the mid-nineteenth century.

Sloughgrass [*Beckmannia syzigachne* (Steud.) Fern. (syn. *B. erucaeformis* sensu Am. Auth.)]

st'ki7stn (Ray 1932:45; LP) (t'ak 'scattered or bunched grass or leaves')

The above identification is only tentative and is from Ray (1932:45). This grass was employed in the Sanpoil-Nespelem area for making mats, just as tule was. Indian hemp fibre was used to sew the grass together or was woven in as the weft. The grass was also used as a material for weaving garments for men and women (Ray 1932:45). The Colville people used "st'ki7stn" for bedding and pillows (LP).

A place at Rogers Bar, south of Inchelium on the west side of the Columbia River, is called "a7k-st'ki7stn" because of the former presence of this grass (LP).

Brome Grass (*Bromus tectorum* L.)

lla7wán (ST; ML) (lawán 'oats') lit. 'little oats'

This grass, an introduced weed, apparently was not used.

Pinegrass (*Calamagrostis rubescens* Buckl.)

t'akwlhp (ST; ML; Lerman 1952-54; Gabriel 1954:26)

This is apparently the plant known locally as "timbergrass". It grows in coniferous forests, especially on steep hillsides. This identification was made on the basis of several collections and informants' descriptions. However, on one occasion, ST identified a specimen of *Carex concinoides* as "t'akwlhp".

ST stated that animals do not like to eat it. This grass was gathered in large quantities by the Okanagan-Colville and used for a variety of purposes. The leaves were laid over and under food in steaming pits. The dried leaves were rubbed together to soften them and used as insoles in moccasins. A bunch of leaves was tied on a stick to make a beater for whipping soapberries (ST;



Fig. 43. Pinegrass (*Calamagrostis rubescens*)—Robert D. Turner

ML). The leaves were placed at the bottom of berry baskets and in a layer over the berries to keep them clean (LA). They were also twisted into cord (Lerman 1952-54). Recently they were mixed with mud and used to chink log cabins and, as mortar, in making chimneys (LA).

Rye Grass (*Elymus cinereus* Scribn. & Merrill)

pespesniwlhtn (ST; ML; NF; CP; Elmendorf 1935-36; Ray 1932:89); or pesniwlhtn (ST only)

This tall, clumped grass was used as bedding (ST) and horse feed (ML). It was also used to line cooking pits, where it was placed over and under the food to be cooked (ML; NF; CP). It is considered to be best for pit-cooking from spring through mid-summer (NF; CP). In an area where fir and cedar boughs could not be obtained, rye grass could be used to cover the floor of a sweathouse (ML). A thick layer of it was placed on the floor of winter pithouses (Ray 1932:32; Elmendorf 1935-36), although the Lakes people covered the rye grass with a layer of bunchgrass because it was softer. Both grasses were gathered by the women in late fall (Elmendorf 1935-36). Rye grass stems were cut, straightened, notched, and fixed with wooden tips to make arrows for use in games and for hunting certain birds and small mammals (ML; Ray 1932:89) (ML adds that the arrowheads were made of mock-orange wood). The roots were washed, mashed, and steeped in water to make a medicine for gonorrhoea. This was drunk around 10:00 at night and 3:00 in the morning for several days. If the disease was caught in time, nine times out of ten it would disappear with this treatment (ML). A solution made by boiling the roots was drunk to prevent internal haemorrhaging and was also used to wash the hair to stimulate growth (LA). The area around Shuttleworth Creek, north of Keremeos, is called "a7klh-pespesniwlhtn" ('place of rye grass') (HR).

Sweetgrass [*Hierochloa odorata* (L.) Beauv.]

sxsi't'iya7 (NF; CP; LP) (xast 'good') lit. 'good grass'

This plant has been identified from specimens collected in Flathead territory and called by this same native name, "sxsi't'iya7" (Stubbs 1966; Hart 1974), as well as from our informants' descriptions. NF, CP and LP describe "sxsi't'iya7" as a type of grass approximately 30 centimetres (one foot) or more high that emanates a very strong odour and formerly grew along the lower Sanpoil River and the Columbia River. ML, however, applied the name "sxsi't'iya7" to a montane form of *Antennaria rosea*.

The blades of this grass were braided together and packed amongst clothes to give them a nice smell (NF).

Foxtail Barley (*Hordeum jubatum* L.)

st'et'i'yáykn (ST) (st'iyí7 'bunchgrass'; -kin 'top/head') lit. 'little bunchgrass on top'

ST used this name for foxtail barley, but ML emphatically states that it should be applied to "speargrass" (*Stipa comata*).

Junegrass (*Koeleria cristata* Pers.)

sxwexwntkwíst'iya7 (ST; ML) (sxwenítkw 'waterfall') lit. (?) 'waterfall grass' (LPR; ST does not agree with this derivation, but ML does)

This native grass is good feed for cattle and horses (ST; ML). It is very common in the Okanagan Valley (ST). LPR said it was named after a waterfall because the fruiting heads droop like falling water, but in fact they are erect, like wheat heads, and thus this explanation is subject to question.

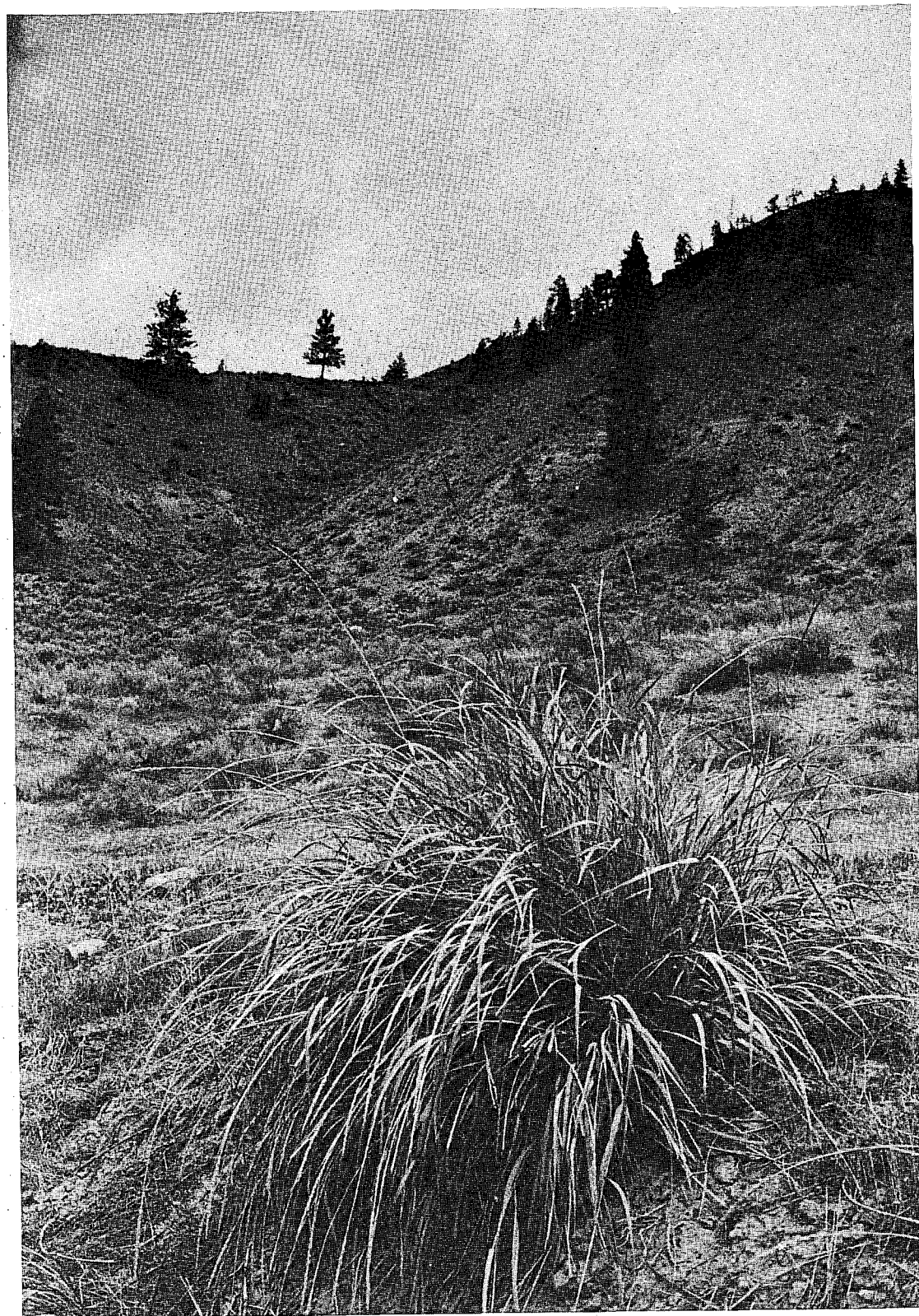


Fig. 44. Rye grass (*Elymus cinereus*)—Nancy J. Turner

Reed Canary Grass (*Phalaris arundinacea* L.)

kts'us (ML; HR; LA; Lerman 1952-54)

This "reed" grows in swampy places and sloughs throughout Okanagan-Colville territory. It was woven into eating mats and mats for drying roots and berries (HR; ML; LA; Lerman 1952-54). Some women used to weave peaked hats from it suitable for wearing by Indian doctors (HR). It was also used in making fishing weirs (ML).

Timothy (*Phleum pratense* L.)

NF and CP knew of no Indian name for this grass, an introduced species commonly grown as a hay crop. Nowadays it is occasionally used in pit-cooking (see also quack grass) (NF; CP).

"Speargrass" (*Stipa comata* Trin. & Rupr.)

st'et'iýáýkñ (ML) (st'iyí7 'bunchgrass'; -kin 'top/head') lit. 'little bunchgrass on top'

ST applies this term to foxtail barley, but ML uses it for this grass. Children used to play with the awned seeds, pulling them off and throwing them like darts. Anarchist Mountain, east of Osoyoos, is called "ka7k-st'et'iýáýkñ" after this grass (WA).

Wheat (*Triticum aestivum* L.)

sest'kín (ST; ML) (sp'am 'to hit'; -kin 'top/head') lit. 'beat a little on the head' (referring to harvesting)

to harvest wheat: sep'kínm (LPR) lit. 'to beat on the head'

Wheat is an introduced crop plant; the Okanagan-Colville apparently did not eat grains aboriginally. In the early days of European contact, wheat was piled up and pounded to thresh it. The kernels were boiled until they burst open, then eaten (ML).

Bur-reed Family (Sparganiaceae)

Bur-reed, or "Reed Grass" (*Sparganium eurycarpum* Englem.)

kw'eskw'ás (HR; ML)

There is an Okanagan-Colville term, "kw'eskw'ás" meaning 'cotton-like' (cf. *Typha latifolia*), but according to HR the name for "reed grass" is not associated with this meaning. Present-day Okanagan-Colville informants consider "kw'eskw'ás" to be very similar to "xatpewítsiya7" (see *Scirpus microcarpus*) and occasionally confused the two species. The blades of "kw'eskw'ás" are thinner and not as sharp. Bur-reed grows in swampy areas throughout Okanagan-Colville territory.

"Kw'eskw'ás" is occasionally still utilized in pit-cooking (NF; CP). It can be used as hay for cattle (HR; LP). A swampy area near Aspen Grove on the Merritt-Princeton Highway, about 1.6 kilometres (1 mile) south of the intersection of Coalmont Road and the highway, is called "a7klh-kw'eskw'estám" ('place of kw'eskw'ás') (HR). The area known as LaFleur Flats, about 13 kilometres (8 miles) up Hall Creek, is known as "klh-kw'eskw'estám" (AL).

Cat-tail Family (Typhaceae)

Cat-tail, or Bulrush (*Typha latifolia* L.)

p'axlhp (ST; ML)

fruiting heads: kw'eskw'astkín (ST; ML; LP; Gabriel 1954:28) (kw'eskw'ás 'cotton-like'; -kin 'top/head') lit. 'cotton-like on top'

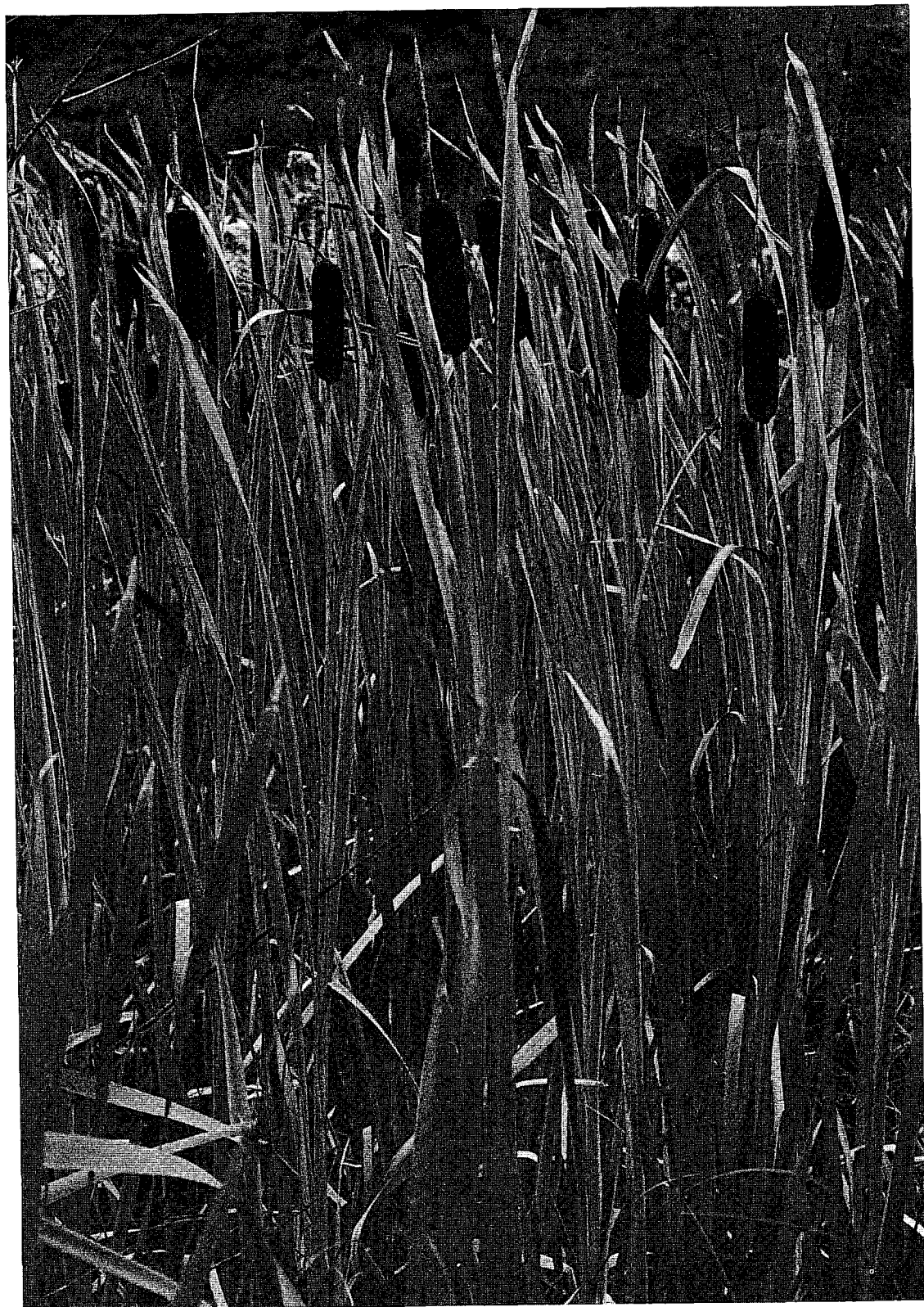


Fig. 45. Cat-tail (*Typha latifolia*)—Nancy J. Turner

The young sprouts were eaten in the spring, like those of *Lomatium dissectum* (LA), and the young fruiting heads were boiled or roasted and eaten at the stage just before they ripen (AL). The roots were also dug and eaten after being pit-cooked (LA). The flat, spongy leaves were woven into various types of mats used for door-coverings, sweatshouses and "A-frame" type shelters (ML; HR; WA; LA). The Lakes, like the other groups, used "rush" (probably cat-tail) mats for roofing. Elmendorf (1935-36) records that each family provided its own mats in a communal dwelling and roofed-over its own living space. The Lakes people also used tule mats for flooring, spread over a layer of up-ended Douglas-fir boughs and bunchgrass or "timbergrass". The leaves were also used to make storage bags for dried roots and berries (ML). The leaves were wrapped around the sweathouse frame at the entrance to prevent a person, entering or leaving, from getting burned on the wood (HR). Indian hemp thread was used to sew the leaves together. The cottony fruiting heads were used as "insoles" for moccasins (ST). The cotton-like fluff from the seed heads was used for sanitary napkins (Spier 1938:46), as a dressing for wounds, and also for diapers. The child's urine caused the fuzz to form little balls which were absorbent and easy to remove from the cradle (ST; Elmendorf 1935-36; Gabriel 1954:28).

A swampy area about 16 kilometres (10 miles) southwest of Princeton on the old Princeton-Hedley road along the east side of the Similkameen River is called "a7klh-p'áp'axlhp" ('small place of cat-tail') (HR). Vaseaux Lake, between Penticton and Oliver, particularly the north end of the lake, is called "p'exlhpíw's" ('cat-tail in the middle') (WA).

FLOWERING PLANTS — DICOTYLEDONS

Maple Family (Aceraceae)

Rocky Mountain Maple (*Acer glabrum* Torr.)

spekwmlhp (ML; ST; Spier 1938:204; Ray 1932:120)

maple leaves infected with eriophyid mites: tuimns i7 spekwmlhp (ST only) (tuimn 'red ochre paint') lit. 'maple's Indian paint'

Maple wood, which is tough and pliable, was used to make many articles, including screens for smoke-drying racks, drum hoops, snowshoes, spear handles, teepee pegs, and tongs for removing food from boiling water (ML; HR; Ray 1932:120). For making drum hoops and snowshoes, the wood was molded by first soaking it in water then heating it over an open fire before bending it to the desired shape (ML). The frame of a woman's sweathouse was often of maple because it is easy for a woman to bend the wood. A child's first bow was usually of maple because it is easy to bend and has "lots of spring" (LA). The wood was also a good fuel (ST). ST considers maple a "bush" (st'ekwt'ákw) rather than a real "tree" (ts'elts'ál). According to ST's conception of Northern Okanagan cosmology, maple is the "king" of all the "st'ekwt'ákw" or "bushes". An old legend exists relating the red colour of maples in the fall to red Indian paint (ST). When one is tracking a wounded bear, he should take a maple branch, tie it in a knot, place it over the bear's tracks, and tighten the knot; this will "stop" the bear (WA).

Sumac Family (Anacardiaceae)

Smooth Sumac (*Rhus glabra* L.)

t'eit'eitlhp (ST; ML; Lerman 1952-54; Ray 1932:219) (t'eíákw 'bleed') lit. 'bleeding plant' (LPR); or (t'íi 'torn') lit. 'torn plant' (AL; SL)

fruiting heads: t'eit'eitlhp i7 sts'álkens (ST; ML) (sts'álken 'seed')

The bright red seed heads were boiled in water and the solution drunk by women during childbirth. It could also simply be drunk as a tea, or used as bathing water for a person suffering from gonorrhoea or frost-bitten limbs (ST; ML). One man was cured of a frost-bitten foot by successive

soakings in a solution of sumac branches with seedheads on them (HR). HR used the same solution to cure an itchy scalp condition. The bark, and/or roots, were steeped in hot water and the infusion drunk and applied externally to the chest for a "tight chest" condition. For external use, a hot towel was soaked in the liquid then spread over the chest and covered with a bear rug (ST). The milky latex from the young stems was used as a salve on sores (ST) and on poison ivy rashes (Spier 1938:166). The leaves were chewed and held in the mouth to heal gum sores, and were mashed and applied to sore lips (Ray 1932:219).

The Okanagan-Colville name for sumac refers to its bright red colour in the fall (see also above). The changing colour of the leaves is an indication that the sockeye salmon are spawning; they are also turning red (WA).

Poison Ivy (*Rhus radicans* L.)

lheklnghwálnht (ST; NF; LP) lit. 'beginning to get a sore or rash'; or suíáka7 (ML; LP) lit. 'beginning to get a sore or rash'

Poison ivy rashes were treated with latex from the stem of sumac (Spier 1938:166), with crushed mariposa lily bulbs (ML; NF), with urine from a young person (ML), by drinking a tea made from red-osier dogwood sticks and leaves (LA), with pounded horsetail plants mixed in water (LP), or with a tea from the leaves of poison ivy itself (HR). Another cure, said to be very effective, was to both drink and bathe in a strong solution of soapberry leaves and branches, made by boiling these in water for a long time. A single dosage of this cure was all that was needed (ST).

Celery Family (Apiaceae or Umbelliferae)

Water Hemlock [*Cicuta douglasii* (DC.) Coult. & Rose]

yníxw (ML; HR; NF; LP); ayníxw (ST only); or nkwekwelutítkw (ST; WA; LA) [kwill 'sit down; land' (plural)] lit. 'a bunch sitting down in the water'

This plant is known as a very bad poison; children were forbidden to touch it (ST). It resembles cow parsnip but is smaller, with more finely dissected leaves and a turnip-like, chambered stem base. It is extremely toxic to humans and livestock (ST; Elmendorf 1935-36). The powdered root was formerly used as an arrow poison; a single small wound by an arrow dipped in this powder was enough to cause the death of an enemy during warfare. HR knew of at least three people in the Similkameen area who were accidentally poisoned by this plant. They mistook it for water parsnip (*Sium suave*), ate the roots and died within half an hour. ML is violently allergic to this plant — after he dug some up on one occasion his hands and face became inflamed and swollen. He treated this condition by chewing a small amount of the branch tips of subalpine fir (Douglas-fir would have been even better, ML stated) and the swelling went down within a few minutes. Cobbs Creek, about 3.2 kilometres (two miles) north of Inchelium is called "ñíxwítkw" ('water hemlock in water') (AL; ML; LP).

"Indian parsnip" [*Cymopterus terebinthinus* (Hook.) T. & G. var. *terebinthinus*]

alapíspes (NF; Ray 1932:222); or píspes (CP only)

This plant is apparently found only in sand dunes in the Hellgate area (located on the north side of the former Columbia River approximately midway between the mouths of the Sanpoil and Spokane Rivers) and along both sides of Highway 97 between Malott and Okanogan (NF; CP).

The outer covering of the root was peeled off, then the root was dried, pounded, and used as a poultice for sores, either alone or with vaseline (NF; CP). Lukewarm water was poured on the dried and pounded root and the solution drunk as a general tonic (if hot or boiling water was poured on the

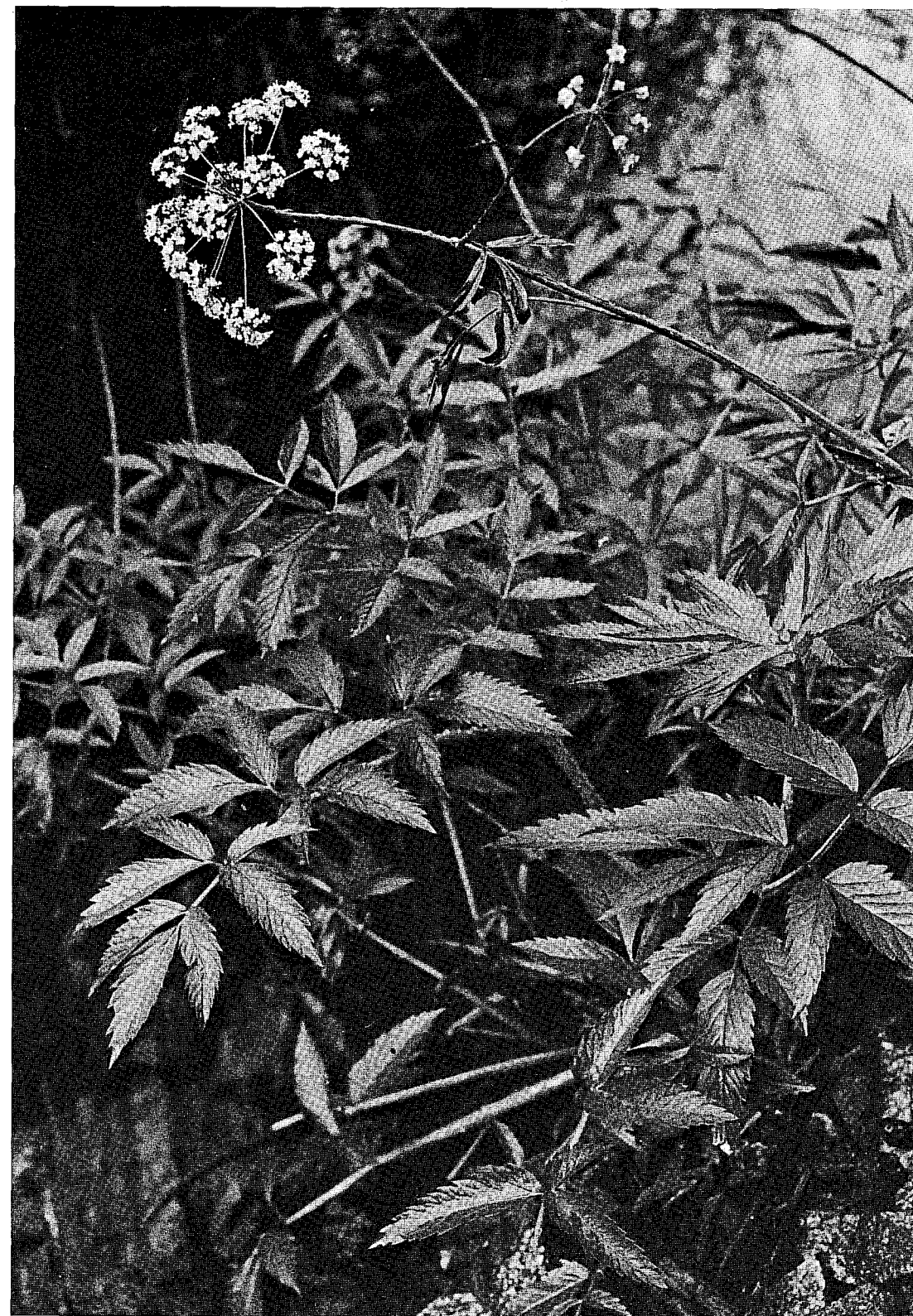


Fig. 46. Water hemlock (*Cicuta douglasii*)—highly poisonous—Robert D. Turner

root, the solution would be too strong for drinking) (CP; NF). Ray (1932:222) states that illnesses of an indeterminate or general nature were treated with a medicine made by boiling the roots of "alapíspes".

Garden Carrot (*Daucus carota* L.)

stl'úkw'em (ST; ML) (tl'ekw'pám 'to stick into') lit. 'the one that is stuck in' (also "Indian carrot" — *Perideridia gairdneri*)

Carrots were introduced by Europeans and are now commonly grown in gardens by the Okanagan-Colville. They were named by the Indians after wild caraway, an edible root in the same family.

Cow Parsnip, or "Wild Rhubarb" (*Heracleum lanatum* Michx.)

xwuxwtílhp (ST; ML; Teit 1930:239; Ray 1932:103; Elmendorf 1935-36) [xwtam 'to cut (plural)'] (also applies to garden rhubarb)



Fig. 47. Cow parsnip (*Heracleum lanatum*)—Nancy J. Turner

In mid-May, before these large plants start to bloom, the flower stalks and leaf stems were harvested, peeled, and eaten fresh. ST's family used to go out to gather them on Sunday picnics. They have a pleasant, celery-like flavour (ST; Elmendorf 1935-36 and Ray 1932:103, who both call them "sweet coltsfoot"). One has to be careful not to confuse this plant with similar species such as water hemlock, which are poisonous. The roots were washed, sliced, pounded, usually heated, and put in a cheesecloth to use as a poultice for sore backs (ST), sore eyes, and other painful areas including boils (Ray 1932:220; Elmendorf 1935-36). They were also boiled with red willow and chokecherry branches to make a strong cleansing medicine for the scalp. When first applied, it burns the skin, it is so strong, but it is said to be very effective; it kills the "germs" and "little worms" in the scalp (ST). The branches can be boiled alone and the solution used as a hair tonic to prevent grey hair and dandruff (LA; Ray 1932:220).

A certain place near Kewa, about 14.5 kilometres (nine miles) south of Inchelium, is called "nxwuxwtílhp" ('having cow parsnip') after this plant (ML).



Fig. 48. Canby's lovage (*Ligusticum canbyi*)—Robert D. Turner

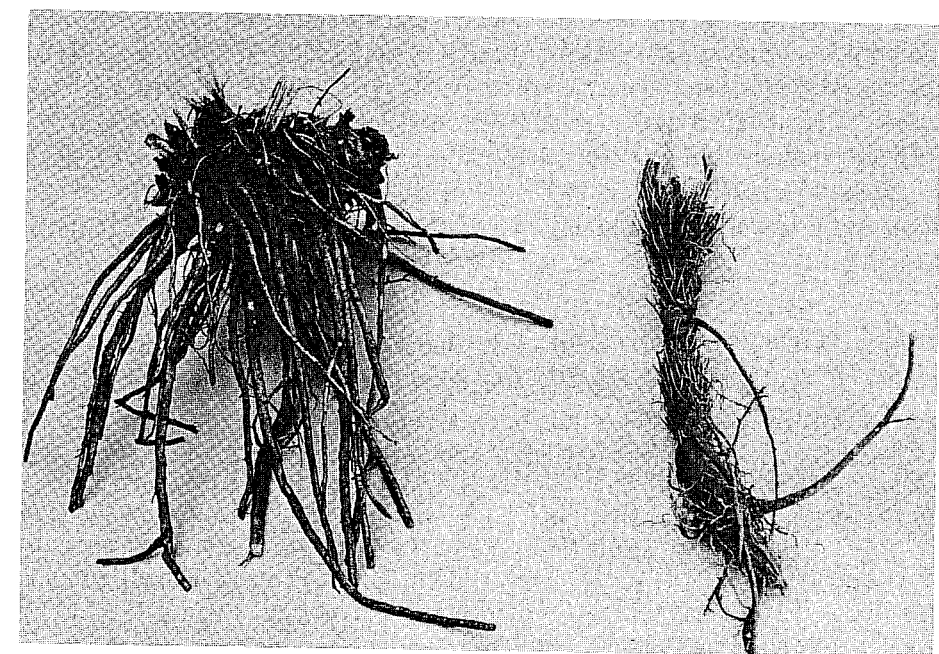


Fig. 49. Roots of Canby's lovage, or "xásxes" (right), and western sweet cicely (*Osmorhiza occidentalis*), or "xwayt" (see page 70)—D. I. D. Kennedy

Canby's Lovage (*Ligusticum canbyi* Coult. & Rose)

ḡásḡes (ST; ML; LP; NF; CP; Ray 1932:222; Lerman 1952-54; Spier 1938:66, 166, 193) (ḡast 'good') lit. 'always good'

This plant grows in damp areas at high elevations, although extensive grazing by cattle has made it difficult to obtain in Okanagan-Colville territory in recent years (ML). Many Indian people are familiar with the root but few recognize the plant's leaves or flowers.

Several present-day Okanagan-Colville informants have commented on the similarities between "ḡásḡes" and "ḡwayt" (see *Osmorhiza occidentalis*); others feel there is a third "closely-related" plant called "ayút" but they are unable to describe this species and have never seen it (LP; NF; CP). LP states that in mythological times these three plants were "brothers"; "ḡásḡes" was the eldest. However, a knowledgeable Spokane Indian has stated that "ayút" is the Kalispel term for *L. canbyi* (Nancy Flett, pers. comm.) ["ḡásḡes" is well known in the Spokane dialect as the Native term for *L. canbyi* (Marion Covington, Margaret Sherwood and Nancy Flett, pers. comm.; R. May, pers. comm.)]. Furthermore, a cognate term "ayún" has been verified as *L. canbyi* in Sahaptin (Eugene Hunn, pers. comm.) and another cognate form, "yi7út", has been given as the Shuswap word for a plant that is very probably *L. canbyi* (Ike Willard and Aimee August, pers. comm.).

This root is very pungent smelling. When it is dug, one must talk to the plant and thank it. The root is broken off and the remaining part of the plant is stuck back in the ground. The root has to be dried for up to three weeks before it can be stored. It is kept in a tobacco pouch or a medicine bag; it is used both for smoking and as a medicine. The best time to dig the roots is in August, after the flowers have withered (ML).

The root of *L. canbyi* is mixed with tobacco or rolled in cigarettes to give the smoke a pleasant menthol taste (ST; ML; Spier 1938:66, 193; Ray 1932:222; Lerman 1952-54). A piece of root tied in a cheesecloth and kept near a baby's face would prevent him from catching a cold. The root was changed every few days. This treatment was used in winter (ST). The root can be held in the mouth to give a good taste (ST) and to relieve coughs and colds (Ray 1932:222; Lerman 1952-54). It is said to numb the nerves. It is also a good general internal medicine (ML). In addition, it has the very special quality of reviving those who have lost consciousness, gone into a trance, or become "possessed" by spirits. For this purpose, it is burned and the smoke is blown on the patient. It was especially important during the winter dances, where it was used to "revive" singers who had gone into a trance and were, for ceremonial purposes, considered "dead". A person possessed by the "bluejay spirit" was subdued and "revived" in the same way (ML; Spier 1938:166; Lerman 1952-54). The root was rubbed on the face and clothing before a dance was attended, as a "perfume" (Ray 1932:222).

The roots of this plant are still highly valued throughout Okanagan-Colville territory.

"White Camas" (*Lomatium canbyi* Coult. & Rose)

ts'exwúsa7 (ST; ML; NF; CP; Ray 1932:99; Spier 1938:30; Lerman 1952-54; Dumbeck 1945)
tops: sti'ixa'łps (Ray 1932:99 — this term is not recognized by ML, LP or NF)

This edible root grows around the "Big Bend" area south of the Columbia River. The Sanpoil-Nespelem, Colville, Spokane and other groups travelled to this area annually in late April and early May to dig these roots. Formerly they camped at the digging grounds and pit-cooked the roots there. Nowadays several of the old people still dig "white camas" in the Big Bend area; a few people still pit-cook the roots (after bringing them home) but most dry them (NF; CP; LP). The roots can also be eaten raw (NF; Ray 1932:99). After being pit-cooked, the roots, which turn brown, must be boiled first before they can be eaten (CP; NF); formerly they were steamed in a basket after



Fig. 50. Dried roots of "white camas" (*Lomatium canbyi*) prepared by Jeanette Aleck—D. I. D. Kennedy

pit-cooking (Ray 1932:99), then peeled and dried (Spier 1938:27). "White camas" is pit-cooked the same length of time as black tree lichen (see *Bryoria fremontii*), but only rye grass (*Elymus cinereus*) is used to line the cooking pit (NF). Dried "white camas" can be eaten as is, or boiled (NF). Formerly the Sanpoil held a "first roots" ceremony with *L. canbyi* (CP).

Spier (1938:26) has recorded a legend about a rock who wanted to marry Moses Mountain; the rock, a woman, had a bundle of "white camas" with her but when Moses Mountain said he didn't want the woman, she ate some of the camas and threw the leavings in Moses Meadow. The camas grew there for awhile but is gone now.

Kouse, or Cous [*Lomatium cous* (Wats.) Coult. & Rose]

kaws (ML; NF; LP; Spier 1938:30); or skákawtsn (AL)

The term "kaws" is apparently borrowed from Sahaptin and Nez Perce. Eugene Hunn (pers. comm.) gives the Sahaptin form "ḡawš" (his transcription) for *L. cous*. Alan Marshall (1977) gives the Nez Perce term "qamsit" for *L. cous* but states that the word "qaws" (his transcriptions) is applied to any *Lomatium* root dried for storage. *Lomatium cous* does not grow in Okanagan-Colville territory but the edible roots were sometimes obtained by trading (Spier 1938:26; NF; LP). AL states that "skákawtsn" (which he says is the same as "kaws") was formerly dug near Lake Chatcolet in the vicinity of St. Mary's, Idaho.

Chocolate tips [*Lomatium dissectum* (Nutt.) Math. & Const.]

gayú7 (ST; ML; LP; Ray 1932:101, 221; Teit 1930:238; Gabriel 1954:29; Elmendorf 1935-36)

shoots (before appearing above ground): sewíya7 (ST; ML; LP; Elmendorf 1935-36; Spier 1938:29; Ray 1932:104)



Fig. 51. Chocolate tips (*Lomatium dissectum*)—Nancy J. Turner

The young shoots, before they come out of the ground in spring, are considered a good food. One finds them by searching for the dead stalks of the last year's growth, and also by locating a bulge in the ground caused by the shoots pushing up to the surface. These shoots are all white and about five centimetres (two inches) long. After they come up they turn purplish and should not be eaten, because they are believed to be poisonous. The edible shoots are ready in the first part of March; sometimes one has to brush away the snow to find them. They are eaten raw as a relish, alone or with meat. They have a dill flavour (Elmendorf 1935-36) and are said to help in "changing the blood" to adapt to the summer's heat (ST; ML). The Southern Okanagan regarded them as famine food (Spier 1938:29). The Sanpoil formerly held a "first roots" ceremony featuring these shoots mixed with the shoots of *Balsamorhiza sagittata* (CP).

The mature tops and roots were considered poisonous. The tops were rubbed on cattle to kill lice. The roots were pounded and steeped in water overnight to make an infusion for poisoning fish. About ten roots in a bucket of water was enough to kill the fish in a section of the creek. The fish killed in this way were not harmful to eat as long as they were collected right away. The women and children would gather them up and clean them. The same solution of pounded roots could be poured

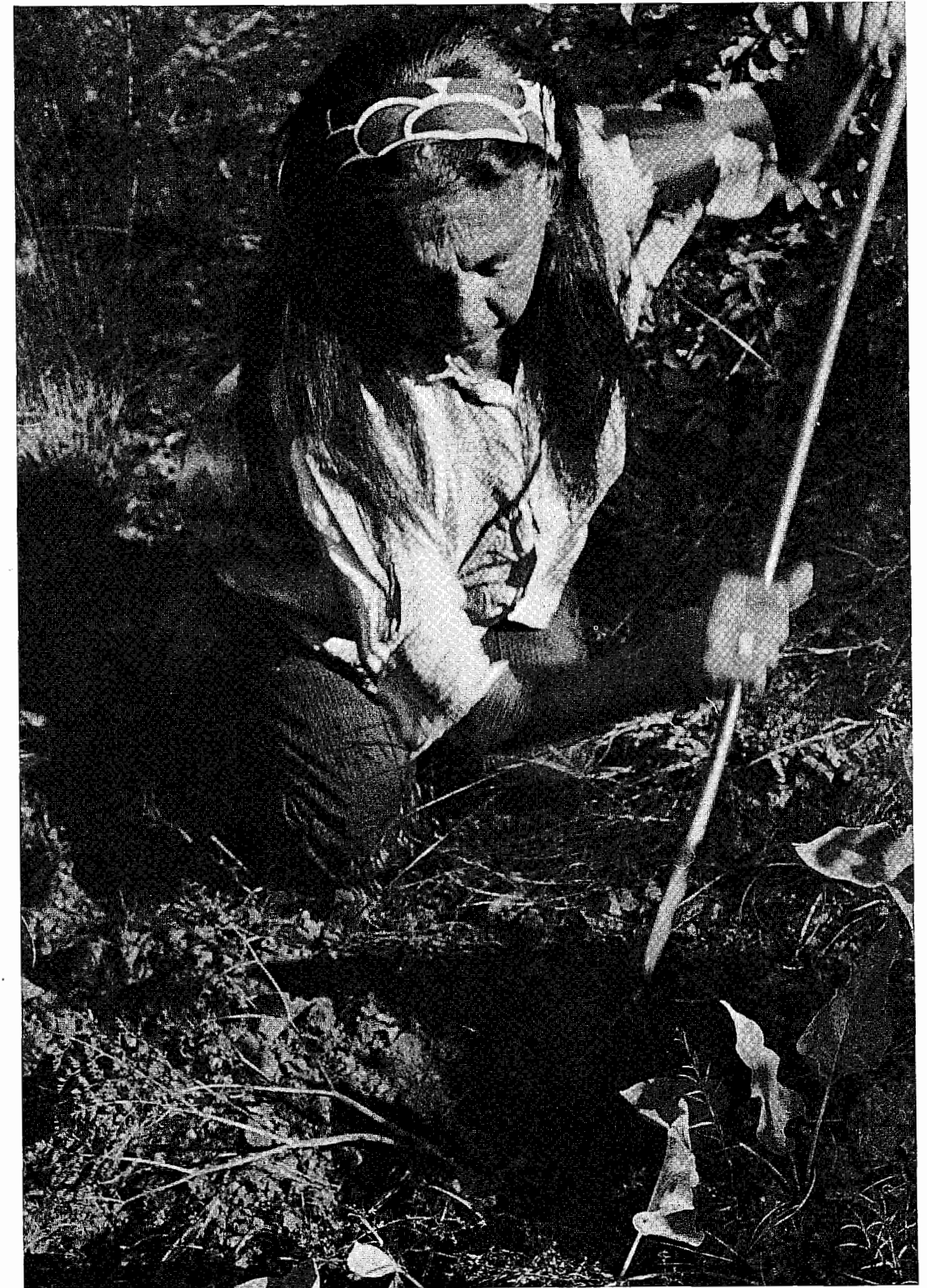


Fig. 52. Selina Timoyakin digging roots of chocolate tips—Nancy J. Turner

over horses or cattle to rid them of lice and other pests (ML). A medicine used to wash sore or scabby skin on horses was made by crushing the green roots and macerating them in water (Ray 1932:221).

The roots were used medicinally as a poultice for a sore back and for open cuts, sores, boils, or bruises. They were peeled, pounded, and bound in cheesecloth for this purpose (ML; HR; Elmendorf 1935-36). Often the roots were first roasted in ashes, split open and the inner portion removed and kneaded before being used (Ray 1932:221; Elmendorf 1935-36). A "tea" made by pouring boiling water over a slice of root, or by boiling the roots in water, was drunk just before bedtime by one suffering from tuberculosis, arthritis or some general illness, but this medicine was poisonous if it was too strong (ML; ST; NF). The tips of the roots could be shredded, macerated in water, and drunk when a person was generally ill (Ray 1932:221). A piece of the root about 2.5 centimetres (one inch) long was pounded and soaked in cold water for at least 12 hours, then used with about a litre (quart) of water to dampen the already washed and moistened scalp to get rid of dandruff. About four applications were necessary; the scalp was allowed to dry thoroughly after each one (ML). The Lakes people used the roots to make a "steam bath" for rheumatism, sprains, and pains of any sort — even for pneumonia. They gathered the roots in quantity, roasted them in a fire until warm, then crushed them. A trench was dug in the house beside the fire, hot rocks were placed in the bottom, then a layer of dirt, then the crushed mass of roots. The patient rolled down into this and was covered with a robe. He remained there until the "bed" cooled and usually he was cured (Elmendorf 1935-36). When she was young, CP was "run-down" and had no appetite so her mother prepared an infusion of the roots of *L. dissectum*; CP recalls it tasted very strong and made her nauseated. She took this medicine while lying on a bed of heated balsamroot leaves.

There is a place named "a7klh-ǵayú7" ('place of ǵayú7') along the Sanpoil River just upstream from Manila Creek (Ray 1932:20; NF; CP), and another place named "klh-ǵayǵayúm" north of the mouth of Nez Perce Creek, along the former west side of the Columbia River (LP; AL).

"Little White Camas" [*Lomatium farinosum* (Hook.) Coult. & Rose]
túxwa7 (Ray 1932:99; Elmendorf 1935-36; NF; LP)

Ray (1932:99) did not identify the plant he called "túxwa7", but the same term is used in Kalispel and Spokane for *L. farinosum* (R. May, pers. comm.). NF still digs it along with "white camas" in the "Big Bend" area. According to Elmendorf (1935-36), the roots were boiled, mashed to a pulp, moulded into cakes with one hand, and dried on mats in the sun. These cakes were called "nts'lxíwlm" ('grabbed food'), and were used in soup. They could also be soaked and made into a kind of porridge. The roots have a celery taste and are not as good raw as cooked. NF boils the roots and eats them fresh.

Geyer's Lomatium [*Lomatium geyeri* (Wats.) Coult. & Rose]

nǵa7tsáks (ST; ML; Teit 1930:238) (gats 'tie up'; -aks 'pertaining to the end') lit. 'something small tied up on the end'

The roots of this plant are characterized by having a number of globular thickenings. The flowers are white. The roots of "nǵa7tsáks" are only about 6.5 centimetres (two and a half inches) deep. They were dug at the same time as bitter-root, and were peeled, cooked and eaten with bitter-root (ML; ST; Lerman 1952-54). Apparently they were formerly featured in the "first roots" ceremony, along with bitter-root (Lerman 1952-54).

Desert Parsley, or "Wild Carrot" [*Lomatium macrocarpum* (Nutt.) Coult. & Rose]
smetsnálekʷ (ST; ML; Spier 1938:30; Teit 1930:238; Ray 1932:100)

This white-flowered plant is very similar to the previous species, called "nǵa7tsáks" (*Lomatium geyeri*), but it has a long, smooth or flattened taproot, while "nǵa7tsáks" has a series of thickenings on its root. It grows throughout Okanagan-Colville territory. The roots were dug in late June and early July, peeled and eaten raw or boiled. They could also be dried for two or three days on mats and stored for winter (Spier 1938:28). They were pierced with a bone needle about 2.5 centimetres (one inch) from the top, and strung for drying. A good root might be 20 or more centimetres (eight or more inches) long. The raw root has a pleasant, "biting" taste, like celery leaves. The "male" (flowering) plant is stronger tasting than the "female" (non-flowering) plant and was seldom eaten. The roots were cooked alone, with bitter-roots, or with tiger lily bulbs and salmon

were not highly prized, at least by the Southern Okanagan (Spier 1938:28).

As well as being a food, the roots were also used medicinally. They were mashed and used as a poultice for open wounds and broken bones (Gabriel 1954:29). The dried root was soaked overnight and chewed to relieve the symptoms of colds, flu, and bronchitis (ML). It was also pounded and applied directly to the inside of the mouth of a baby afflicted with mouth sores or "thrush" (LA).

A former campground on the west side of the Columbia River, just south of the Kettle Falls bridge, is called "smetsnúla7xw" ('smetsnálekʷ ground') (ML; Ray 1932:20).



Fig. 53. Martin Louie digging "wild carrot" (*Lomatium macrocarpum*)—Nancy J. Turner



Fig. 54. Martin Louie with "wild carrot"—Nancy J. Turner



Fig. 55. "Wild carrot" (*Lomatium macrocarpum*)
—Nancy J. Turner

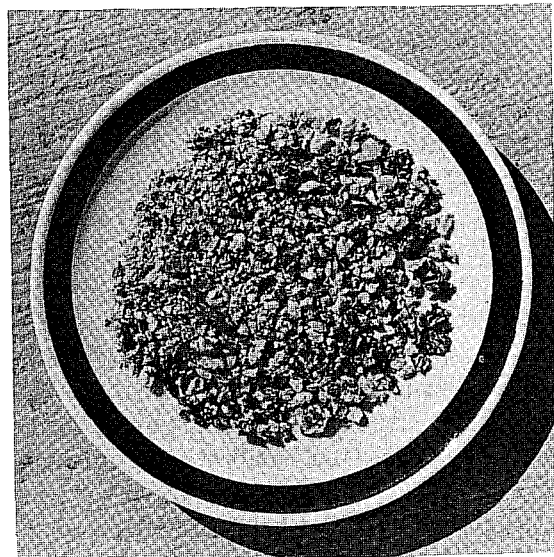


Fig. 56. Roots of "Indian carrot" (*Perideridia gairdneri*) dried and ground; prepared by Jeanette Aleck—D. I. D. Kennedy

"Indian Celery" [*Lomatium triternatum* (Pursh) Coult. & Rose and *L. ambiguum* (Nutt.) Coult. & Rose]

kw'exwkw'áxw (ST; ML; Ray 1932:100; Elmendorf 1935-36; Lerman 1952-54; Teit 1930:239) (kw'axt 'pungent odour')

There is some confusion as to the identity of "Indian celery". Both of these plants, as well as *L. geyeri*, have been identified as "Indian celery" although ST called *L. triternatum* "seláxts i7 kw'exwkw'áxw" ('friend/cousin of Indian celery'). She stated that it was sometimes used as a substitute for "Indian celery", but was not quite the same. She said the real one is 30 centimetres (one foot) taller and has more flower heads on it. The name may also refer to *L. nudicaule* (Pursh) Coult. & Rose, which is often called "Indian celery". "Indian celery" was, and still is, dried and used to flavour meats, stews, and salads. The flowers and upper leaves are the parts used. They are picked in June and can be dried for later use. They have a pleasant aromatic flavour, akin to celery (ST; ML; Lerman 1952-54). An infusion of "Indian celery" in water was drunk for colds and sore throats (ST). This is apparently the same species that Ray (1932:100) states has yellow skin and white flesh, and is about 7.5 centimetres (three inches) long and 13 millimetres (half an inch) wide. He adds that it is found in spring along the banks of the Columbia and was eaten raw or pit-cooked by the Sanpoil-Nespelem. Elmendorf (1935-36) also mentions this plant in his Lakes notes. He states that the leaves and roots were laid over the top of food in a cooking basket. They gave the food a parsley flavour. They were seldom eaten themselves because their flavour was too strong.

Western Sweet Cicely [*Osmorhiza occidentalis* (Nutt.) Torr.]

xwayt (ML; LP; CP; Spier 1938:165, 166); or seláxts i7 xásxes (ML) lit. 'cousin/friend of xásxes (*Ligusticum canbyi*)'

At times ML has confused the distinguishing traits of "xwayt" and "xásxes" (see *L. canbyi*), but these are two distinctively different plants. *Osmorhiza occidentalis* grows in drier areas and usually at somewhat lower elevations than *L. canbyi*, although occasionally the two plants can be found growing near each other. The roots of "xwayt" emit an extremely pungent, yet pleasant, licorice-like odour.

Osmorhiza occidentalis is not considered as strong a medicine as *L. canbyi* (ML; LP). An infusion of the roots was drunk as a cold medicine (Spier 1938:165) or for a fever (LP); the root, itself, was chewed as a headache cure (Spier 1938:166). A piece of the root was applied directly to ease a toothache (CP). Hunters would carry a piece of the root with them to produce a "good smell" so that animals could not notice their human scent (CP).

Wild Caraway, or "Indian Carrot" [*Perideridia gairdneri* (H. & A.) Mathias]

stl'úkw'em (ST; ML; Ray 1932:100; Spier 1938:30; Gabriel 1954:25; Dumbeck 1945; Elmendorf 1935-36) (also applies to garden carrot) (tl'ekw'pám 'to stick into') lit. 'the one that is stuck in'

This plant grows best at higher elevations, such as at "snkstl'úkw'em'n" ('place to get Indian carrot') (ML) [also known as "a7k-stl'úkw'em" ('place of Indian carrot') (AL)], on the south slope of Sit-Down Mountain, about 19 kilometres (12 miles) northwest of Inchelium. Two other good places to get it are "stl'ekw'múla7xw" ('Indian carrot ground'), situated on the west side of the Sanpoil River, across from Louie Creek (ML; NF; CP; Ray 1932:21), and "klh-íla7kw" ('open area'), in the vicinity of Nine-Mile Creek (NF). The Southern Okanagan dug this plant from Twisp to Winthrop, around Duley Lake, in the Waterville area, and in the vicinity of Bridgeport (Spier 1938:27).

The roots of "stl'úkw'em" are several inches long, as thick as one's finger, and often bifurcated, or two-forked. Those at Sit-Down Mountain are said to be the best anywhere; all of them are bifurcated (ML). The roots were dug in mid-May through June, depending on the elevation. The stalks were broken off and placed in an Indian hemp side-basket (Spier 1938:27). They were washed and eaten raw or boiled. They could also be cooked, sliced, and dried, then mixed with dried, powdered deer meat. This mixture has an excellent taste, like marrow (ML). Sometimes the roots were steam-cooked in underground pits for about an hour, then eaten immediately or dried for about three days (Spier 1938:27). The dried roots did not keep well. They were often boiled alone or with saskatoon berries until thick, or made into a "pudding" by crushing with rocks, mixing with flour or black tree lichen, and forming into balls of about 2.5 centimetres (one inch) in diameter (Elmendorf 1935-36; Spier 1938:27; ML). The fresh roots could be stored for a short while by burying them in a pit lined with cottonwood bark to keep out gophers and other rodents. "Indian potatoes" (*Claytonia lanceolata*) were stored in the same way (ML).

Water Parsnip (*Sium sauve* Walt.)

segáyakn (HR; ST; Ray 1932:100; Teit 1930:238; Spier 1938:30)

This plant was identified by description only. It is about 30 to 60 centimetres (one or two feet) high and grows in damp places and swamps. The tops look like parsnips (HR). It has a multiple white root, each piece of which is about 12.5 centimetres (five inches) long (Ray 1932:100). HR states the roots were dug and eaten raw in early spring, just when the snow was melting, at the same time that the underground shoots of chocolate tips were harvested. Ray (1932:100) reports they were gathered from spring to fall. Water parsnip roots were eaten by various other Interior peoples,

including Thompson, Lillooet, Shuswap and Kootenay (Turner 1978:113). One must be very careful not to confuse water parsnip with water hemlock (*Cicuta douglasii*), which is extremely poisonous.

Dogbane Family (Apocynaceae)

Spreading Dogbane (*Apocynum androsaemifolium* L.)

sp'ip'ts'n (ST; ML; HR) (sp'its'n 'Indian hemp') lit. 'resembling Indian hemp'; sp'ets'p'ats'-n'w'akwulh (NF; Ray 1932:219) (translated by Ray as 'false hemp'); or lhelh'kilha7p (ML) lit. 'like a little saskatoon bush' (see fireweed)

This plant is very similar to the real Indian hemp, but is shorter. The stems were sometimes used to make fibre, as a substitute for Indian hemp, but were inferior. Ed Monaghan's father told him that the leaves were chewed and the juice and pulp swallowed as an aphrodisiac. It starts to act within about half an hour and is highly effective. Alternately, for the same purpose, the leaves could be dried until crisp, then crushed and smoked directly; this was even more "potent". Both men and women could use it (Ed Monaghan, pers. comm.; the plant collected by him was identified by NF). The roots were boiled in water and the concoction drunk about once a week as a contraceptive (Ray 1932:219).

Indian Hemp (*Apocynum cannabinum* L.)

sp'its'n (ST; ML; AL; LP; NF; Lerman 1952-54; Spier 1938:68; Ray 1932:45) (also refers to twine made from Indian hemp)



Fig. 57. Indian hemp (*Apocynum cannabinum*)—Robert D. Turner

Indian hemp is found in many places throughout Okanagan-Colville territory. At least three places are named "a7klh-sp'ip'ts'n" ('place of Indian hemp') after this plant: at the northwest end of Okanagan Lake (JA; ML); about five kilometres (three miles) east of Hedley (HR); and on the west side of the Columbia River, 6.5 kilometres (four miles) south of Sherman Creek (ML).

The stems were harvested in October, just as the leaves were turning yellow. Damp areas produce the tallest, thickest plants; those on the sidehills are bushier and not as good. The harvested plants were bundled by the lower ends for carrying. The branches and leaves were cleaned off, and the stems were flattened by pulling them over a pole tied to a tree. They were then split open from bottom to top with a sharp stick. The woody, outer skin was pulled off by hand after rubbing the stems. Then the fibrous parts just under the skin were bundled together and hung by the tops in the wind to dry. When dry they were brittle. The process of rubbing the hemp to separate the fibres is called "st'xwakwlkw'm" (xwakwm 'to rub, scrape') (ML) and the splitting process is called "kt'el'iwsem" (t'el'am 'to rip open') (ML). The fibres were made into twine by twisting and rolling them with the hand on the bare thigh, called "sel'am" (ST) or "st'upm" (ML). The hands were kept damp to increase the friction. The stem fibres were joined together by splicing; the thick (lower) end of one fibre bundle and the thin (upper) end of another were each split about one half of the length of the stem, and the pieces placed together as an interlocking "V", then rolled together until they were intertwined. An average plant yields about 90 centimetres (two and a half feet) of fibre, but half of this is lost in the splicing process (ST; ML; Spier 1938:68; Lerman 1952-54). By splicing the stems together, a continuous length of twine could be produced. A finer twine was made by splitting the stems in two along the entire length and using the halves as one would a whole stem. A strong rope could be made by twisting several lengths of twine together. A good Indian hemp rope is said to have the equivalent strength of a modern hemp rope with a breaking point of several hundred pounds. The twine would keep for many years if stored in a dry place (ML).

Indian hemp twine was excellent for making fishing lines and nets because it keeps its strength under water and does not shrink. It was also used in the manufacture of many other items, including deer nets, slings for hunting small game, nooses for snaring grouse and other game birds, hide stretchers, moccasins, clothing, woven bedding for baby cradles, wheels used in a type of dart game, tump lines, and cat-tail mats. It was probably the most versatile of all indigenous fibres. For making garments, the fibre was sometimes mixed with deer hair before spinning (Ray 1932:45).

In the old days a large bundle of prepared Indian hemp fibre was worth a horse (Spier 1938:77). Indian hemp was a common trading item, especially between the Okanagan and Thompson people. The Thompson obtained it from the Southern Okanagan in exchange for salmon and animal skins during trading expeditions made to Okanagan country every other year (Spier 1938:76-77). early 1800's, Alexander Ross of the Pacific Fur Company noted that the Southern Okanagan undertook a fifteen-day journey to the coast where they traded Indian hemp for dentalia shells and trinkets (Ross 1849:291).

A woman desiring to become permanently sterile drank, during her monthly period, a strong solution of Indian hemp roots boiled in water (ST).

Ginseng Family (Araliaceae)

Devil's Club [*Oplopanax horridum* (J. E. Smith) Miq.]

xaxag'ylhp (ST; HR; Spier 1938:165) (ST and HR also use this term to refer to swamp gooseberry); or xwuxwugw'ylhp (ML; LA; Ray 1932:220)

The roots were used as a medicine for consumption or a dry cough (ML; LA; Ray 1932:220; Spier 1938:165). About 115 grams (one quarter pound) of the roots were split up and steeped in water. The infusion was given to the patient just before bedtime, after all was quiet, and again around three or four o'clock in the morning. The stems, with the spines and bark removed, could also be used to make this medicine (ML; LA). To keep the medicine cool in the summer, it was put down by the creek, but one had to be careful not to allow the shadow of another person to pass over it, or it would lose its power as a medicine. The medicine would be "shamed"; "You might as well drink water" (ML). Such precautions were important in preparing all medicines, but particularly this one, which is considered to be extremely "sensitive" (ML).

Birthwort Family (Aristolochiaceae)

Wild Ginger (*Asarum caudatum* Lindl.)

spu7sílhm̓x (ML) (spu7ús 'heart') lit. 'heart-shaped plant'; also spepa7pu7ús (ML) (see calypso)

ST recognized both of these terms as plant names, but did not know the plant itself. An infusion of the root was drunk for colds and as a laxative (ML).

Milkweed Family (Asclepiadaceae)

Milkweed (*Asclepias speciosa* Torr.)

nti7taýxáya7 (ST; HR; Watkins 1970:32); or snk'lip i7 sp'its'ns (ML; AL) lit. 'Coyote's Indian hemp'

In some areas, the stem fibre of milkweed is used as a poor substitute for Indian hemp. The "milk", or latex [called "stextkwámálek̓w" (WA)] from the broken stems was rubbed on skin sores (WA; HR). It was said to be a sure cure for warts (Watkins 1970:32). The roots were mashed with a bit of water to make a poultice for rheumatism, although this use was learned from non-Indians (HR).

ML recalls a legend about an old lady who had two granddaughters whom Coyote was after. She ran out of Indian hemp, so Coyote, to win her favour, urinated on some plants and made them look like Indian hemp, although really they were just milkweed.

Aster or Composite Family (Asteraceae or Compositae)

Yarrow (*Achillea millefolium* L.)

k̓w'ets'k̓w'ets'wi7húpa7s (ST; ML; HR; Lerman 1952-54) (k̓w'ek̓w'ets'wiya7 'chipmunk'; -ups 'tail') lit. 'chipmunk's little tail'; k̓w'ets'k̓w'ets'wi7húps (AL; LP); or k̓w'ets'k̓w'ets'wiya7húps (NF; Ray 1932:218) lit. 'chipmunk's tail'

fine-leaved variety: xwek̓w'xwák̓w' (ML; HR)

This plant is named after the leaves, which are feathery, like a chipmunk's tail. The leaves and stems were placed on hot coals to make a smudge for keeping away mosquitoes (ML; NF; LP; CP). They were mixed with white clematis and branches from the "witch's broom" on Douglas-fir, to make a shampoo (ST). The inside of the root was mashed and applied to a tooth to relieve the pain of a toothache (ML). The roots were steeped and the infusion drunk for a headache, stomachache (ML) or cold (NF). It was also taken in small doses for diarrhoea (WA; Lerman 1952-54) and used externally as an eyewash for sore eyes (Teit 1930:293; Lerman 1952-54) and for burns and rashes. A tea made by boiling the leaves was taken in the evening for a cold (Ray 1932:218; Lerman 1952-54). A concoction of the roots, boiled with the leaves of scarlet gilia, was taken as a laxative and physic. It had a very unpleasant taste (HR). A strong potion, made by boiling the leaves and stems, was taken to cause an abortion (Ray 1932:218). Boiling the whole plant and bathing in it was said to soothe the pain of arthritis or rheumatism (NF). ML and HR distinguish a fine-leaved variety of yarrow, which was used for the same purposes as the common type.

Yellow Agoseris [*Agoseris glauca* (Pursh) Raf. var. *dasycephala* (T. & G.) Jeps.]

snlek̓wús (ML; NF; LP) (lek̓ám 'to pull something out of something else') lit. 'pulled out from the face or eye'

At first ST and ML called this plant "kwekweik̓weí'7", a general name meaning 'a bunch of little yellow-green things' (cf. fairy bells and yellow violet), and ML originally applied the above name to a specimen of *Arnica*. However, he stated that the plant called "snlek̓wús" has a milky sap

in the stem and leaves, which *Arnica* does not. This plant has also been positively identified as "snlek̓wús" in Spokane (R. May, pers. comm.). The Okanagan-Colville people used to dry the "sap", or latex and use it as chewing gum (LA; ML; NF; LP). An infusion of the entire plant was used to wash sores and rashes, and the stem latex was rubbed directly on sores as a poultice (ML; HR). The roots were steeped for a short time in water and the infusion drunk as a laxative (ML).

Pearly Everlasting [*Anaphalis margaritacea* (L.) B. & H.]

tsemtsemh̓k̓ixw (LP; NF; CP; AL) (kiyáxw 'odour'); sesáni7stn (NF; Spier 1938:123) (sant 'perfume'); nk̓w'em̓k̓in (ML) (k̓w'am 'piled hair or fur'; -kin 'top/head') lit. 'piled hair-like substance on top'

The leaves, stems, and flowers were placed in baby cradles, pillows, or stored clothes to provide a "good smell" (LP; NF; CP; AL). Placing this plant in the baby cradle assured that the child would also smell sweet throughout its life and would grow healthy and strong (Spier 1938:123). Apparently this plant was also used as a medicine for "poison stomach", when one loses one's appetite and can't keep food down. The roots, along with five or six small shoots, were steeped in hot water. The infusion was allowed to cool and was then drunk. It has a laxative effect and causes vomiting. Afterwards one feels better (ML).

Rosy Pussytoes (*Antennaria rosea* Greene)

white-flowered lowland form: sp'ek̓p'ek̓'i 7úla7xw (HR only) (p'ik̓ 'glittering appearance') lit. 'glittering appearance on the ground'

pink-flowered, montane form: xs̓ist'iya7 (ML only) (xast 'good') lit. 'good grass' (see also *Hierochloe odorata*)

The leaves of the lowland form were chewed and swallowed to increase male virility (HR). The roots of the montane form were dried, powdered, and put into hot coals at a winter dance. The smoke was used to drive away bad spirits in the dance house and to "revive" new dancers who had passed out or "gone bluejay". They could be mixed with *Ligusticum canbyi* roots for this purpose (ML). (This information may actually apply to sweetgrass—*Hierochloe odorata*.)

Arnica (*Arnica cordifolia* Hook. and *A. latifolia* Bong.)

ntsetsahsm̓n̓wixw (ML; LA; WA; HR) lit. 'facing each other'

These plants, considered the same, were used as a "love medicine" in the following way: one mixed the roots with a robin's heart and tongue and with ochre paint, then dried and powdered the mixture. He then went into the water and facing east, recited certain words, mentioning the name of the person he desired and marking his face with the powdered arnica mixture. This is considered a type of "phax̓", or "witchcraft". The name is derived from this use (ML).

European wormwood (*Artemisia absinthium* L.)

txaxagáýkst (ML; LA) (xaxágt 'menthol-taste') lit. 'menthol-taste leaves'; or pagpáglhem̓x (ST; WA) (pag 'grey') lit. 'grey bush' (see also *A. tridentata* and *Chrysothamnus nauseosus*)

There is much confusion among our informants and within the literature concerning the botanical identification of the various types of wormwoods and sages used by the Okanagan-Colville. This species, originally introduced from Europe, is now locally common in parts of Okanagan-Colville territory. WA calls it "German weed" and both ST and WA recall that it was

introduced into the Penticton area some years ago by Northern Okanagan people who wanted to use it for medicine. It was probably imported from the Lower Mainland, where it has been a long-standing weed.

Like other types of sage, this plant has a strong, aromatic smell. The branches were placed under mattresses as a repellent for bedbugs and other insect pests (ST). They were also used medicinally. After a baby's birth, they were used as a sanitary napkin to "heal the mother's insides" (ST). They were also mashed, boiled, and used as a poultice or a wash water for broken limbs. They were said to draw out the pain and heal the wound quickly (HR; WA; ST). WA was cured of broken ribs and collar-bone using this poultice; he declares it very effective. A tea made by boiling a few twigs or steeping them in hot water was drunk for tuberculosis and head colds (ST; ML; Gabriel 1954:29). It is bitter and causes sweating. The tea was also taken as a cure for venereal disease (ST). The leaves, pounded slightly, were used as a poultice for chest colds or flu. The roots were split, steeped in hot water, and drunk for stomach ailments (ML). Some of these medicinal uses may also apply to the native western sage (*A. ludoviciana*).

Wormwood, Tarragon, or Dragon Sagewort (*Artemisia dracunculus* L.)

ts'i7ts'i7xílhp (ST; ML; Spier 1938:166; Ray 1932:217) (Ray translates this as "squeaking bush", but AL feels the term is derived from ts'its'áyxt 'repellent odour')

This leaves have a pleasant menthol-like fragrance. The branches, with leaves attached, were used both to make spreaders for drying salmon and to separate stored layers of salmon. The odour acts as an insect repellent and stops flies from laying eggs in the flesh (WA; NF; CP; Ray 1932:76). The branches were also burned as a smudge for driving away mosquitoes (WA). The leaves were put in a baby's board or cradle to provide padding and to keep the baby cool on hot days. They were also placed in a diaper or used as a diaper to heal diaper rash and rawness of the skin, and by women as sanitary napkins (ST). The leaves were mashed, dampened slightly, and applied directly to the forehead to cure a headache (HR). They could also be used in a steambath to relieve the pain of rheumatism or arthritis (CP). For stomachache, the roots were boiled and the infusion drunk (Spier 1938:166).

Wormwood roots were steeped in cold water to obtain a solution used in the treatment of colds (Ray 1932:217). The roots could also be steeped in hot water, along with the roots of yarrow, and the mixture drunk as a general tonic (NF).

Pasture Wormwood (*Artemisia frigida* Willd.)

kweikweikín (ST; ML) (skwalht 'cottony') lit. 'always cottony on top' (see also *Erigeron linearis*); WA and ST also use the term nek'nek'tilha7p (nak't 'rotten') lit. 'rotten little bush', which ST says is the "main" name for this species, and WA says is the "only" name, but this term has also been applied to western sage (*A. ludoviciana*)

This is regarded as the smallest type of sagebrush (ST; ML). The leaves and branches were steeped in water (only a few leaves were needed) to make a strong infusion that was drunk to make one sweat, to get rid of a cold or the flu. It is very bitter tasting (ML; ST). According to Lerman (1952-54), the plant was boiled in water to make a medicine "good for anything". Elmendorf (1935-36) records that the Sanpoil people sometimes made salmon-spreaders from a strong-smelling "weed" called "nek'nek'tilhp", probably either this species or western sage. It was said to leave a strong odour in the fish, which, as with the other wormwood used for this purpose (*A. dracunculus*), would have repelled flies and maggots.

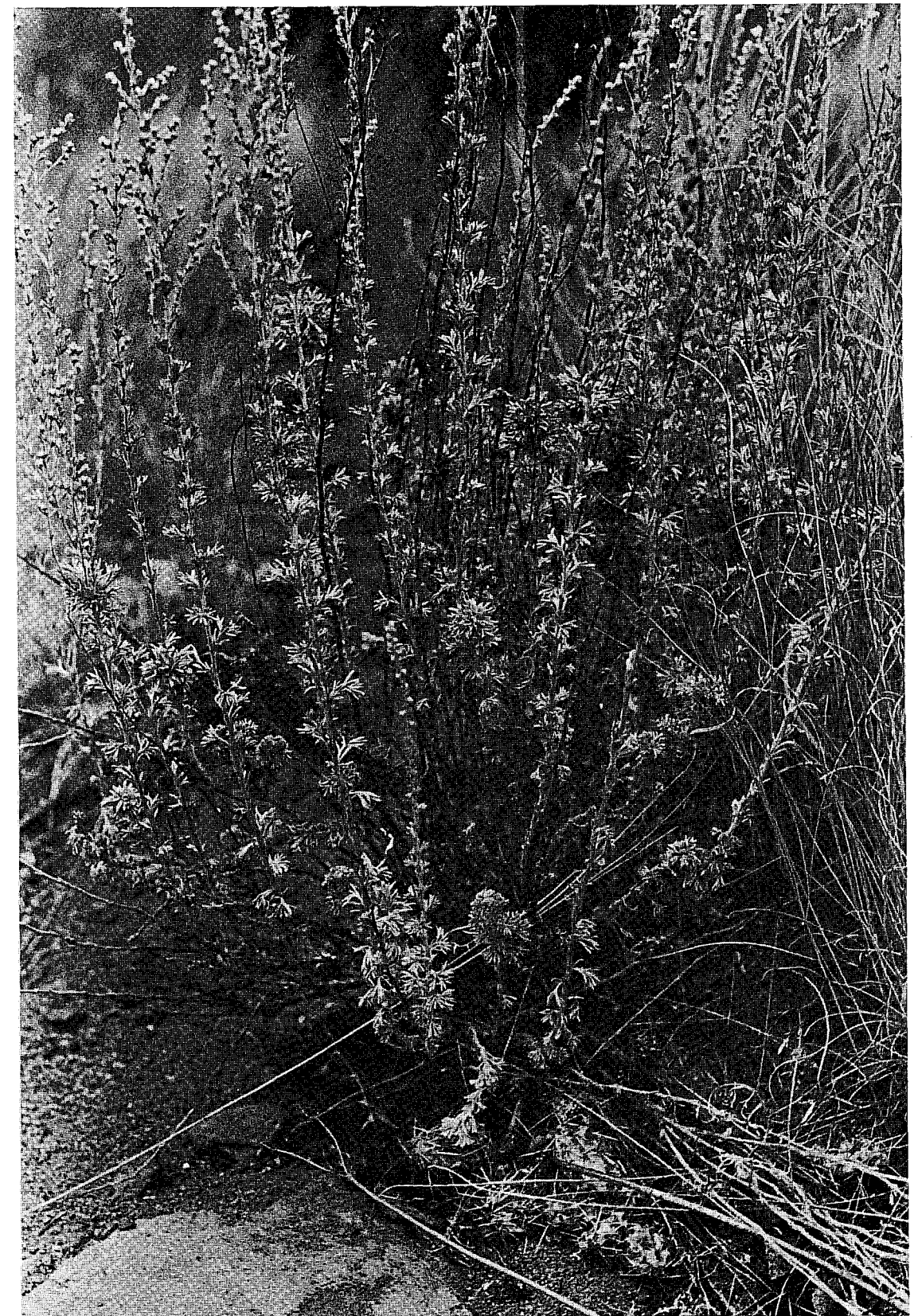


Fig. 58. Pasture wormwood (*Artemisia frigida*)—Nancy J. Turner

Western Sage (*Artemisia ludoviciana* Nutt.)

nek'nek'tilha7p (ST; ML; WA; HR; Ray 1932:217) (see also *A. frigida*); nek'nek'tilhp (ML) lit. 'rotten bush'; or sp'ekwp'kwanihp (ST; WA)

This is a highly variable species, and in its different forms is easily confused, by Native and White botanists alike, with several other species of *Artemisia*. Many collections of sages and wormwoods were made in an effort to "sort out" which Okanagan-Colville names and which uses were applied to which species. ML applies the name "nek'nek'tilhp" only to this species, which, according to him does not grow in the south and east of Okanagan-Colville territory. It grows in damp places, along river banks and beside swamps and lakes (ML). Ray (1932:217) also uses this term for *A. ludoviciana* [syn. *A. vulgaris* L. var. *ludoviciana* (Nutt.) Jeps.], but a Spokane informant applied the cognate term to *A. absinthium*, the European wormwood (R. May, pers. comm.). ST also applies the term "nek'nek'tilha7p" to pasture wormwood (*A. frigida*), and WA applies it exclusively to *A. frigida*.

The strong-smelling leaves were placed in the nostrils and left for an hour or so to relieve a cold in the head or a headache; dried and pulverized, they were sprinkled on sores to hasten their healing (Ray 1932:217). A solution of the plant could be drunk by a person during sweatbathing and also splashed on his body. After the sweatbath he would spit out the "juices" that accumulated. This spitting out of the saliva would "clear his wind" and enable him to walk long distances while hunting (ML). The branches may have been used by the Sanpoil people as salmon spreaders (see pasture wormwood).

Big sagebrush (*Artemisia tridentata* Nutt.)

kweikweimnihp (ST; ML; WA; NF; Ray 1932:36, 217; Teit 1930:294; Watkins 1970:32) (skwalht 'cottony') lit. 'always cottony plant'; or kweikweikin (ML) (see also *A. tripartita* and *A. frigida*)

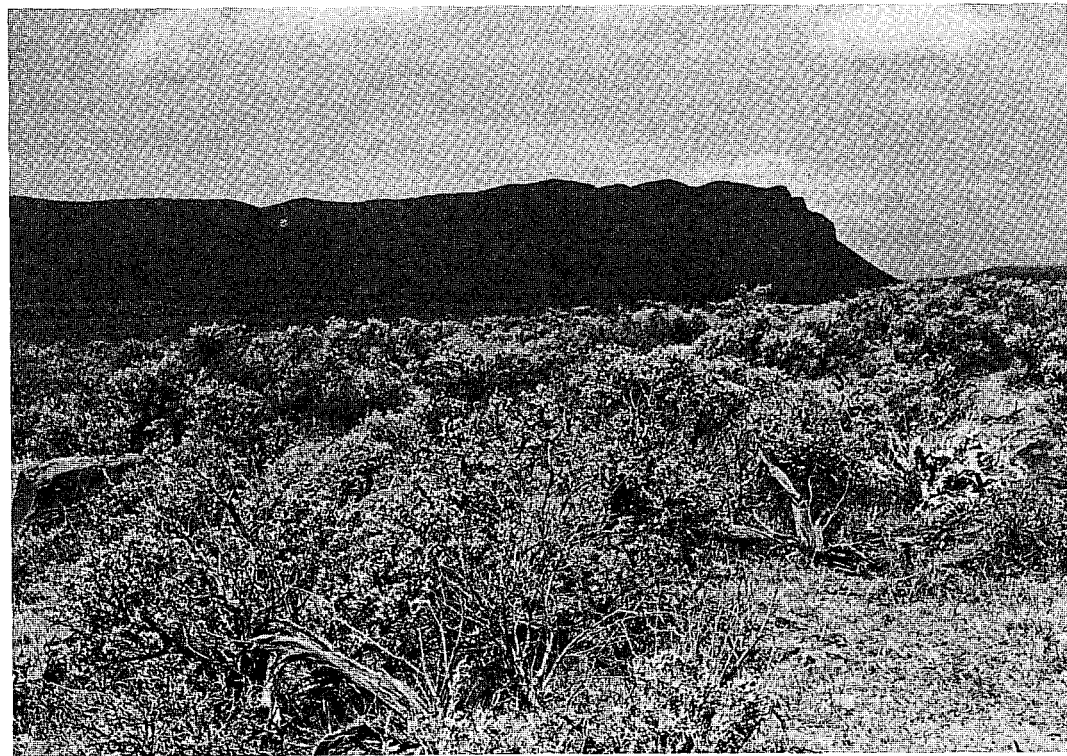


Fig. 59. Big sagebrush (*Artemisia tridentata*)—Nancy J. Turner

The term "pagpáglhemix" ('grey bush') (see *A. absinthium* and *Chrysothamnus nauseosus*) was used by ST at one time to refer to a low, strong-smelling type of *A. tridentata*, possibly *A. tripartita*. The term "kweikweikin", ordinarily applied to pasture wormwood (*A. frigida*), has been used on occasion for short specimens of this species as well as *A. tripartita*.

The bark of the sagebrush was stripped off and braided to use as a rope, and for making quiver cases and saddle blankets, as well as dresses, skirts, aprons, and breechclouts, especially for those too poor to afford better materials (Lerman 1952-54; Spier 1938:43). It was also used as tinder, for making friction fires, and the wood was used as a fuel and for smoking hides during the tanning process (Lerman 1952-54; NF). To make a "slow match" for travellers, the bark was twisted tightly and tied in lengths of 60 to 90 centimetres (two or three feet) (Ray 1932:43).

The leaves and branches were widely used as a medicine for colds, sore throats, and tonsillitis. They were boiled to make a strong, bitter tea, which was drunk to cause sweating during a cold (ML; HR) and for grippe (Ray 1932:217). An even stronger tea, for indigestion, biliousness, and tuberculosis, was made from the seed-heads and branch tips. The taking of this medicine was customarily preceded and followed by sweatbathing. It also acted as a laxative (Ray 1932:217). The leaves were also mashed, held in the palm of the hand, and inhaled. They clear the nose and throat like camphor or "Vicks Vaporub" (ML). When ST was young she had a severe case of tonsillitis. Her father mashed and heated some sagebrush leaves and plastered them all around her neck. When the poultice dried he changed it. It was left there all day, and by evening she was able to drink soup and felt better. She never had tonsillitis again. She says the reason sagebrush is such a good medicine is that it is "almost poisonous" itself and can kill germs. An infusion of sagebrush was drunk as a cure for smallpox (Spier 1938:165). The roots were steeped in hot water and drunk as a cure for a cold or sore throat (NF).

A certain mountainside near Hedley is called "a7kih-kweikweimnihpínek" ('place of big sagebrush on the sidehill') (HR).

Short Sagebrush (*Artemisia tripartita* Rydb.)

kweikweikin (WA; ML) (see also *A. frigida* and *A. tridentata*); or pagpáglhemix (ST) (see also *A. absinthium* and *Chrysothamnus nauseosus*)

There is some confusion about the Okanagan-Colville names for the different types of sagebrushes, but at least WA has definitely identified a specimen of this species as "kweikweikin" as opposed to "kweikweimnihp", the big sagebrush (*A. tridentata*). It is shorter than the big sagebrush and said to have a stronger smell. It was used medicinally in the same way as the big sagebrush (WA). On several occasions the term "kweikweikin" was simply applied to smaller specimens of *A. tridentata*. Normally the term is used to refer to pasture wormwood (*A. frigida*). ST at one time used "pagpáglhemix" to refer to this species or to small specimens of *A. tridentata*. This term is more commonly applied to rabbitbrush (*Chrysothamnus nauseosus*), and has also been used for European wormwood (*Artemisia absinthium*).

Hoary Aster (*Aster canescens* Pursh)

sewínúmta7x (ML only) lit. 'beautiful one'

This was used for "plhax", or "witchcraft" (ML).

Purple Aster (*Aster conspicuus* Lindl.)

ntsústsestsn (ML; LA) (tsus 'rattling noise'); nxíkxektsn (ML; LA) (xik 'shuffling noise')

The root was considered an excellent medicine. When soaked in hot or cold water it turns the liquid greenish-blue. This liquid was drunk for gonorrhoea and other ailments and was also used

externally for washing sores, boils, hemorrhoids, wounds, and infections. The root was applied directly to the tooth for a toothache, and the leaves were plastered over boils and hemorrhoids as a poultice. The root was also used to treat cuts on horses when they became maggoty (ML).

Leafy Aster (*Aster foliaceus* Lindl.)

nkwerkweri⁷s (ML only) lit. 'having yellow eyes'

ML was slightly unsure of the Indian name. The whole plant was boiled and the solution used to wash sores on a horse's back (ML).

Hooker's Balsamroot (*Balsamorhiza hookeri* Nutt.)

p'elíwa (NF; LP; Ray 1932:100)

This species was identified by NF and LP from a photograph and also from the identical Sahaptin term "p'li'wa" (E. Hunn's transcription) which refers to *B. hookeri* Nutt. var. *lagocephala* (Sharp) Cronq.; apparently the root of this variety is barely edible (E. Hunn, pers. comm.). Ray (1932:100) transcribes the term "p'uli'wa" as the root of the "common sunflower" (*Helianthus annuus* L.) and the term "puli'wa" as the name of a tuberous root with pink flesh, heavy skin and sweet flavour that was gathered in spring from hillsides near rivers. He states this root has to be roasted before the skin could be removed. However, what Ray transcribes as "p'uli'wa" or "puli'wa" is probably *B. hookeri*. Furthermore, Ray states (1932:104) that "mi'k'tu" ("míktu⁷", the term referring uniquely to the seeds of *Balsamorhiza sagittata*) refers to the seeds of *H. annuus*, so he was likely mistaken in his identification of *H. annuus*. The term "wuxwa'ka'lp" transcribed by Ray (1932:100, 103, 104) as the name for *H. annuus* and translated by him as "frog plant", is not recognized by ML, NF or LP.

The roots of *B. hookeri* were formerly dug in the "Big Bend" area and pit-cooked (NF; LP). The plant is restricted to the southern part of the study area.

Balsamroot, or Spring Sunflower [*Balsamorhiza sagittata* (Pursh) Nutt.]

root: smúkwa7xn (ST; ML; Elmendorf 1935-36; Lerman 1952-54; Spier 1938:28) (mukw 'lump') (lit. 'lump on the foot') (this term also refers generally to the whole plant)

leaves: p'its'elkwna⁷ (ST; ML; LPR; LP) [ML used this term on one occasion to refer to the "female" (non-flowering) plants]; or smukwa7xníhp [NF; LP; Ray 1932:219 (Ray, however, applies this term to the whole plant)]

Young shoots: (s)piyúska⁷ (LA; LP; NF; CP) (LP, NF, and CP state this term applies uniquely to the shoots of balsamroot); or spellúps (ST; ML) (pelál 'grow'; -ups 'tail end') lit. 'tail end growth'; or spellúska⁷ (ML) (-úska⁷ 'out of the ground') lit. 'growing out of the ground' (these latter two terms apply generally to any shoot)

seeds: míktu⁷ (ST; ML; Lerman 1952-54; Spier 1938:30; Teit 1930:239; Ray 1932:104)

Ray (1932:219) gives the terms "smukwa7xníhp" and "pi7ík" for *B. sagittata* but acknowledges that the latter might refer to a "distinct species" (see *Wyethia amplexicaulis*). "Míktu⁷", the term applying uniquely to *B. sagittata* seeds, is given by Ray (1932:104) as the word for the seeds of *Helianthus annuus*, the common sunflower (he was likely mistaken in this identification).

In early spring, as early as March, the young shoots, about 2.5 centimetres (one inch) long and white, were dug out before they had emerged from the ground and eaten raw. After they come up they turn green and become bitter. One must collect many buds to make a good meal, but they are delicious. They can also be baked in the ground or in an oven (ST; Elmendorf 1935-36). The Southern Okanagan ate the shoots in times of famine (Spier 1938:29). Formerly the Sanpoil held a "first roots" ceremony featuring these shoots mixed with those of *Lomatium dissectum* (CP). The



Fig. 60. Balsamroot (*Balsamorhiza sagittata*)—Robert D. Turner

flower bud stems were also eaten, but only before the flowers had developed. The outer skin was peeled off and the succulent inner portion was eaten raw or boiled (ST; Lerman 1952-54; Elmendorf 1935-36). Apparently the roots were also pit-cooked and eaten in the old days, but our informants did not recall details of their preparation. LP used to dig around the top of a large sunflower root and stake his horse to it.

The seeds, which resemble miniature sunflower seeds, were collected from the dried flower heads from June to August. They were shaken out or beaten out with a flexible stick into bags or baskets. The seeds are usually dry enough at this time, but if necessary they were spread on mats and dried for two or three days, or browned by toasting on a hot rock (Spier 1938:28) or in an oven (NF). The chaff could be removed by winnowing — pouring from one basket to another in the wind. Properly stored, in air-tight containers, the seeds would apparently last for six years (Spier 1938:28). They were prepared by being ground to a powder, "shells and all", with a stone mortar and pestle. They were eaten alone or mixed with other foods such as deer grease, pine nuts, pounded dried saskatoon berries, Douglas-fir sugar or, recently, white sugar (ST; Spier 1938:28; Lerman 1952-54). The Spokane and Lakes people boiled them as soup (Elmendorf 1935-36). Children occasionally ate them whole, but they were more often eaten in the powdered form. Often the seeds were kept in dried salmon skins (Ray 1932:104). Although the seeds were usually gathered in mid-summer, May was called "míktu⁷tn" after them in Northern Okanagan (Lerman 1952-54).

The leaves were sometimes substituted for tobacco. For this purpose, they were mixed with kinnikinnick (Spier 1938:66, 193). In winter, people would keep their feet warm by stuffing their moccasins with spring sunflower leaves, deer hair, or grass (Spier 1938:44). The Sanpoil used these leaves to lay salmon on after they had been cleaned and washed (NF). According to ML, the name "smúkwa7xn" originates from the practice of young boys training to get power by wrapping the leaves around their feet, pinning them on with bunchgrass stems, and walking with them to see how far they could get without tearing the leaves. This was to prepare them for walking silently and carefully in the woods wearing moccasins. Certain gifted young men could even jog with these leaves on their feet. Thus, the Okanagan-Colville term "mukwa7xnám" means 'to make moccasins out of smúkwa7xn leaves' (ML).

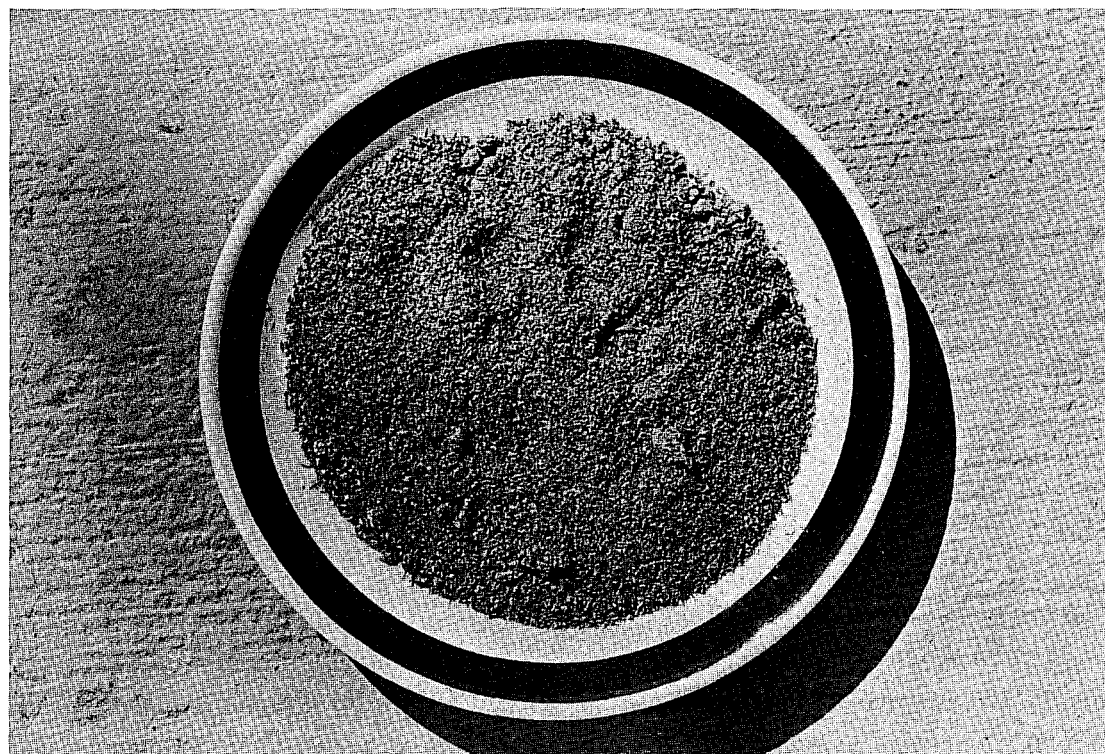


Fig. 61. Seeds of balsamroot, dried, roasted, and ground; prepared by Jeanette Aleck—D. I. D. Kennedy

CP was sick and had no appetite on one occasion when she was young, so her mother placed an approximately 20-centimetre (eight-inch) layer of sunflower leaves on some glowing coals. CP was told to lay down on these leaves and was covered with a quilt. Sweating profusely, she was given an infusion of *Lomatium dissectum* roots to drink. CP fell asleep, and when she woke up she was cured.

The leaves were dried, powdered, and applied directly to severe burns on the skin to ease the pain and promote healing (ML). The roots were boiled and the “tea” drunk for rheumatism (Lerman 1952-54). A small piece of root was dried, toasted near the fire, and pulverized to make a powder for sores and boils. Sometimes the root was flattened by hammering, heated, and then bound to a body area which was bruised or painful. Or, alternately, a small piece of root was cut off and macerated in boiling water to make a salve for sores. A hair tonic was made by shredding the inner portion of the root and mixing it with water. This concoction was rubbed on the hair and scalp to help the hair grow (Ray 1932:219).

Bachelor's Button (*Centaurea cyanus* L.)

nkwekwikwágykn (ML only) (kwagy ‘blue/green’) lit. ‘little blue/green top’

This plant was introduced from Europe. ML did not know of any use for it.

Chaenactis [*Chaenactis douglasii* (Hook.) H. & A. var. *achilleaefolia* (H. & A.) A. Nels.]

teptupelmálhp (NF; CP) (túpel ‘spider’) lit. ‘spider plant’; or tuptupálα‘u’ps (Ray 1932:221 — Ray translates this term as ‘spider grass’ but actually it means ‘spider tail’)

The roots were steeped in hot water and the infusion used as an eyewash (NF). A preventative medicine “to avoid contracting consumption” was made by boiling the roots; this tea was drunk by the surviving members after a death in the family (Ray 1932:221).

Rabbitbrush [*Chrysothamnus nauseosus* (Pall.) Britt.]

pagpáglhmeix (ST; WA; Ray 1932:217; Lerman 1952-54) (pag ‘grey’) lit. ‘grey bush’ (see also *Artemisia ludoviciana* and *A. tridentata*; pepagpágyíha7p (ML only) lit. ‘little grey (plural) plant’

This low bush is regarded as “a type of sagebrush”. ST and WA feel that it is the “real pagpáglhmeix”, although *Artemisia ludoviciana* is sometimes called by that name. ML’s term was applied to a particular specimen of *Chrysothamnus*; he seemed unsure of the plant and said it was not very common. The leaves were used as a sanitary napkin (ST; Lerman 1952-54), particularly by a woman after childbirth, to “heal her insides” (ST). The branches were used for smoking hides (Lerman 1952-54; ST). A few branches were placed in a container, ignited, and held under a horse’s nose to cure it of distemper. The branches and leaves were pulverized, mixed with water, and rubbed on horses to protect them from horseflies and gnats (Ray 1932:217; ST).

Thistles [*Cirsium undulatum* (Nutt.) Spreng. and *C. vulgare* (Savi) Airy-Shaw]

sntekweikwallíwstñ (ST; AL; Teit 1930:238) [kwill ‘sit down/land (plural)’]; -iws ‘middle’; -tñ ‘place, causative’ lit. ‘place where they sit down/land in the middle’; or lhu7lháwt (LP; NF)

The first name refers to the habits of butterflies, which like to land on thistle flowers (ST). Apparently, neither the native thistle (*C. undulatum*) nor the introduced one (*C. vulgare*) was used (ST).

Hawk’s Beard (*Crepis atrabarba* Heller)

xep’xíp’kn (ML only) lit. ‘stuck together at the top end’

The green tops were pounded and steeped in hot water. When cool, the solution was used in a foot bath to cure a “sweaty feet” condition (ML).

Fleabane (No. 1) (*Erigeron filifolius* Nutt.)

ntitixwús (ML only) (ntitiyix ‘spring salmon’) lit. ‘spring salmon’s eye’ (see also *Gaillardia aristata*).

This flower was not used (ML). Ray (1932:219) applied a similar term to a species he identified as gum plant (*Grindelia nana* Nutt.).

Fleabane (No. 2) [*Erigeron linearis* (Hook.) Piper]

pepegpág (ST only) (pag ‘grey’) lit. ‘a bunch of little grey ones’; kweikweikín (JA) (skwalht ‘cottony’) lit. ‘always cottony on top’ (see also *Artemisia frigida*)

The first name is a general one; it was applied to several small hairy-leaved plants, including *Plantago patagonica*. The second was applied by ST and ML to pasture wormwood, but JA applied it to this species and said that his grandmother used to boil the whole plant in water and drink the tea as a cure for tuberculosis.

Fleabane (No. 3) (*Erigeron philadelphicus* L.)

ngwagwakín (ML only) (ngwakín ‘bunched at the top’ — the name is a plural form) (cf. also *Castilleja thompsonii*)

The leaves and blossoms were steeped and the infusion taken for a headache (ML).

Fleabane (No. 4) (*Erigeron pumilus* Nutt.)

tkw'ekw'xwn7ú's (ML only) lit. 'mouse's eyes'

The roots were steeped in hot water and the infusion used to wash the eyes as an "eye tonic" (ML).

Brown-eyed Susan (*Gaillardia aristata* Pursh)

mitl'mn (ST; HR) (mitl' 'to paint'; -mn 'instrument') lit. 'painting instrument'; kntitixwús (AL only) lit. 'spring salmon's eye' (see also *Erigeron filifolius*); ntita'xwúsa7 (NF only) lit. 'spring salmon's eye'

This flower looks like balsamroot, but blooms later in the season (ST). The first name refers to the practice of "painting" one's body with the flower to draw out pain (ST). ST's grandfather used to mash the plant, wrap it in cheesecloth, and apply it as a poultice for a "backache". He also drank a solution of the plant boiled in water for kidney problems (ST). The whole plant was steeped in hot water or boiled and used as a bathing water to cure venereal disease. The patient sat in the solution and soaked in it (HR).

Hawkweed (*Hieracium scouleri* Hook. and *H. cynoglossoides* Arv.)

kw'i7kw'i7lhp (ML only) (kw'iyt 'frosty') lit. 'frosty-looking plant'

These plants were used as a general tonic. The leaves and roots were steeped in hot water and the infusion drunk any time (ML).

Purple Lettuce [*Lactuca pulchella* (Pursh) DC.]

nkwekwí7kwi7kágn (ML only) (kwagy 'blue/green') lit. 'little blue/green tops'

ML originally applied this name to *Epilobium miniatum*, then later to this species. The plant called by this name was used as a medicine for diarrhoea in children. The roots and stems were steeped in hot water and the infusion drunk. It works very gradually (ML).

Pineapple Weed [*Matricaria matricarioides* (Less.) Porter]

ntsetseltselxwkin (ST; ML) (tsalxw 'round objects') lit. 'a bunch of little round objects bunched together on top'; or nt'et'ep't'epkin (ST; ML) (t'ap 'a type of round object') lit. 'a bunch of little round objects on top' (cf. *Equisetum* spp.)

ST stated that children used to eat the "little bulbs" on top, namely the flower heads. This plant was also used for "witchcraft", or "plhax". The tops are mashed and mixed with the hair from a horse's forehead and also with the material from the musk gland on its leg, and with some hair from one's own head. This mixture is then buried on the range where the horse is supposed to remain and he will never run away. A similar procedure can be applied for humans; if one doesn't want his loved ones or relations to go away, he mixes the tops of pineapple weed with his own hair and that of his loved one and buries the mixture on his property (HR).

Goldenrod (*Solidago canadensis* L.)

young stage: pupawíaka7 (ST; AL; NF; LP); or nt'ekwskeñáglhmix (ML) (t'akw 'popping sound')

older stage, when it has "lumps" on it in the fall: t'epíli7s (ST; LP) or nt'ep't'epkin (ML) (t'ap 'a type of round object') lit. 'round objects on the top' (cf. *Matricaria matricarioides*)

The "lumps" or "round objects" referred to in the above names appear to be the clustered flower heads. Children used to play with these plants; they would pick them and use them as whips (ST). An infusion of the shoots in hot water was fed by spoonful every little while to a child or baby

with a fever, when it would not stop crying (ST; ML). The shoots have a sort of "menthol" taste (ST). The flower heads were also used to make a tea which was taken for diarrhoea (LA). During the 1918 "flu" epidemic, many people boiled the flower heads and drank them as a cure for this sickness (LP).

Dandelion (*Taraxacum officinale* Weber.)

atxílexkn (ML only) lit. 'sleeping top'

The above name is applied because the tops close each night and seem to "go to sleep". This plant was introduced from Europe, but the Colville people used to eat the leaves as greens just as some White people did (ML).

Goatsbeard, or Salsify (*Tragopogon pratensis* L.)

sp'a7xwának (HR only) lit. 'bright glow'; or swupúla7xw (ST) lit. 'ground hair' (general term for grasses and grass-like plants)

This is an introduced plant. ST notes that it is eaten by deer, horses, and cattle.

Mule-ears (*Wyethia amplexicaulis* Nutt.)

pi7ík (LP; NF; CP; Ray 1932:219)

Ray (1932:219) gives "pi7ík" as an alternate term for balsamroot (see *Balsamorhiza sagittata*), but acknowledges this word might designate a "distinct species".

The large root of this plant was warmed and pounded to remove the outer covering, then the root was applied directly as a poultice for pain of arthritis or rheumatism. This root causes a person's skin to become "numb" (LP). This species is restricted to the southern part of the study area.

Barberry Family (Berberidaceae)

Tall Oregon Grape (*Berberis aquifolium* Pursh)

berries: sts'ars (ST; ML); or sts'eris (NF; Lerman 1952-54; Teit 1930:239)

bush: sts'ersílmix (ST; ML; Dumbeck 1945; Elmendorf 1935-36) lit. 'sour-tasting (low) bush'; or sts'ersíhlp (NF; Elmendorf 1935-36; Lerman 1952-54; Gabriel 1954:29; Ray 1932:37,102) lit. 'sour-tasting plant'

The berries, though very tart, were eaten raw in the old days. They were gathered in mid-August in pine-bark buckets or cedar-root baskets. ST does not recall them being dried, but according to Spier (1938:25-26), they were squeezed and mashed while in the baskets, then spread on rocks by the handful to dry. After several days they were stored in tule sacks. They were eaten as dried lumps, or sprinkled with water and rolled in a mat to rehydrate (Spier 1938:26). They could also be stored fresh by covering them with straw and leaves so they would not freeze (Lerman 1952-54). Some Sanpoil people boiled the berries in a "jam" and ate it fresh (NF). The Lakes people seldom used Oregon grape fruits because they were considered too tart. However, they were sometimes picked, in September, and pressed to make juice, which was heated with hot rocks before being drunk (Elmendorf 1935-36).

The inner bark of the stems and roots yields a bright yellow dye, which was used for colouring basket materials, mountain goat wool, and porcupine quills (ML; Elmendorf 1935-36; Spier 1938:69; Ray 1932:37). Apparently the sticks were simply boiled in water until it was almost all boiled away and all that was left was a powdery yellow substance. This could be mixed in with ochre paint or the resin of cottonwood buds. Often wolf "moss" (*Letharia vulpina*) was boiled up with Oregon grape to give an even deeper yellow (ML).

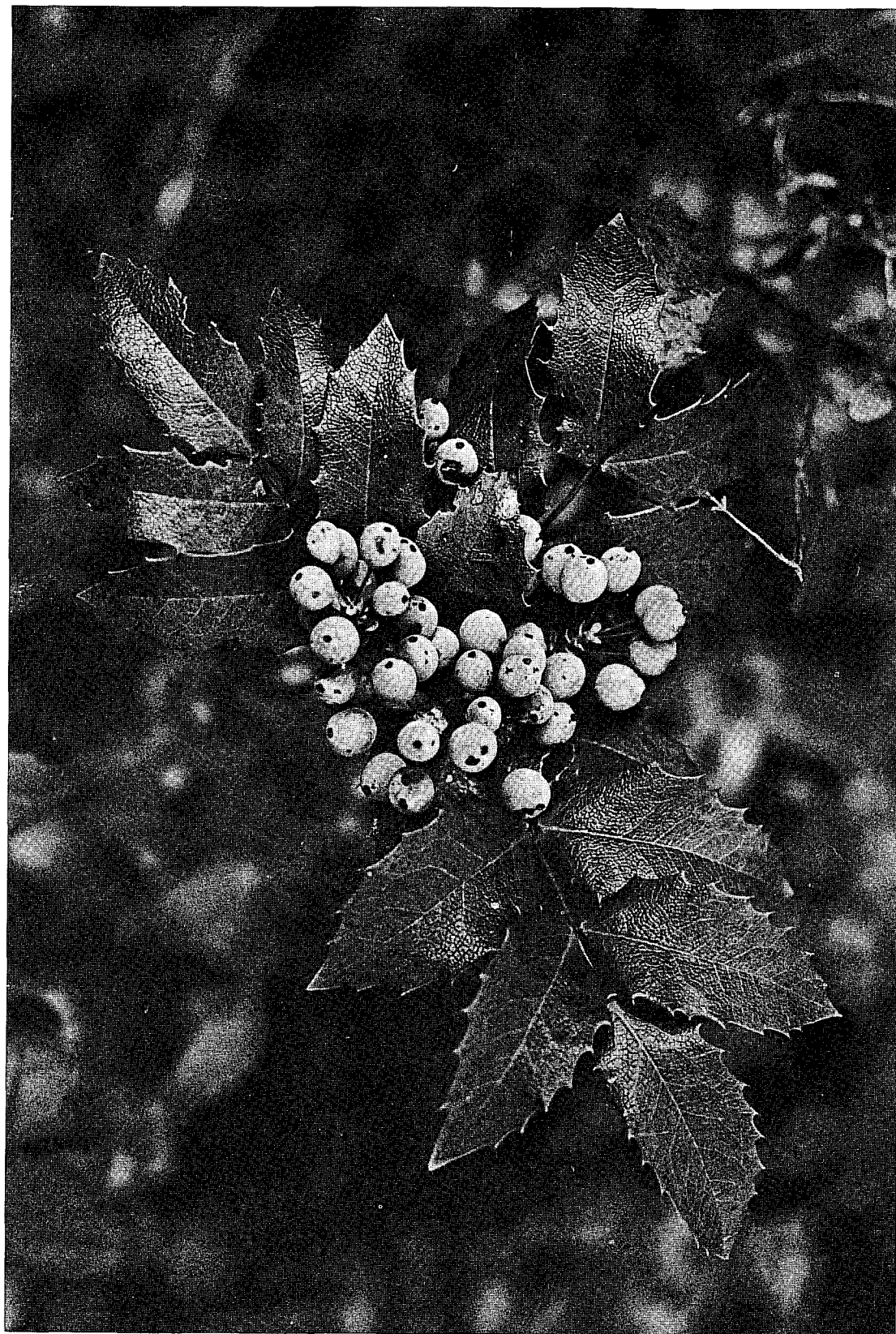


Fig. 62. Tall Oregon grape (*Berberis aquifolium*)—Robert D. Turner

Oregon grape was an important medicine, used as an eyewash, a tonic and blood purifier, and for bad kidneys. As an eye medicine, the outer bark was peeled off the stems and the inner bark was shaved off and steeped in hot or cold water, or boiled in water (Ray 1932:219; LP). The tall bushes are best for eye medicine (LP). The resulting yellowish infusion was used to wash out the eyes when they were blurry or bloodshot. The application was stopped as soon as the eyes had cleared (ST; Ray 1932:219). The effectiveness of this medicine was increased by adding a few drops of a woman's breast milk (HR). A blood tonic was made by boiling a few branches of Oregon grape and chokecherry together. The resulting "tea" was put in jars and drunk once or twice daily by all members of a family during the time of the "changing of the blood" in November and March. ST's grandmother used to make this tonic (ST). Sometimes Oregon grape roots were boiled with "sarsaparilla" [probably actually prince's pine (see *Chimaphila umbellata*)] for this tonic (Gabriel 1954:29) or with the roots of yarrow and wild raspberry (LA). In the latter case the roots of the Oregon grape should be gathered from plants growing in rocky areas; the tonic was said to be good for the kidneys (LA). Sometimes the branches of Oregon grape were steeped alone in hot water and drunk as a blood tonic (NF). Alternately, for bad kidneys, when one has to urinate often, the roots of Oregon grape were boiled with those of chokecherry, and the brew was drunk for a period of time (ST). This medicine could also be made with Oregon grape roots [two pieces, ten centimetres (four inches) long], and kinnikinnick branches [two pieces, ten centimetres (four inches) long]. These were boiled together and the brew drunk in the same way (ST). A tea made from the tips of the branches was drunk to relieve an upset stomach or to stop vomiting, and the liquid obtained by boiling the roots was taken for tuberculosis (Ray 1932:219).

Branches of Oregon grape, presumably because they are prickly, were placed, with those of wild roses, in a person's grave and around the walls and on the furniture of the house where the person had died, to prevent his ghost from returning (Spier 1938:128). Oregon grape berries were thrown into the air to stop the rain (Ray 1932:214). Larkin Creek, on the southwest side of the Similkameen River about 22.5 kilometres (14 miles) northwest of Keremeos, and the area drained by this creek, is called "a7klh-ts'ats'e's" ('place of lots of Oregon grape') (HR).

Birch Family (Betulaceae)

Green Alder and Mountain Alder [*Alnus crispa* (Ait.) Pursh and *A. tenuifolia* Nutt.]

k'i7k'i7tnílhp (ST; ML; Lerman 1952-54; Ray 1932:37) (k'i7a7 'dead, dry tree') lit. 'always dry tree' (AL and SL, however, state that k'i7k'i7tnílhp is derived from k'i 'shade' and means lit. 'always shady tree')

These two species are similar and apparently were not distinguished by the Okanagan-Colville. The burnt ashes of alder or birch were used to clean the teeth (ML). Only alder wood was used for cooking deer meat because it does not blacken it and ruin the flavour (Lerman 1952-54). Cordage was made from alder bark, and alder roots were sometimes used to make coiled baskets. They were peeled and kept wet so they would remain pliable while the basket was being woven (Lerman 1952-54).

Alder was the main source of red and brown vegetable colouring (Ray 1932:37; Lerman 1952:54; ML; NF). According to ML, alder wood could be used, mixed with red ochre, to make a red "paint". He described the procedure for making the paint as follows: A piece of alder wood was boiled in water — boiled right down until the water was dark red. Then the wood was taken out and powdered ochre pigment was added to the liquid. It was boiled and stirred again until it was nearly dry, then "one or two drops" of salmon oil ("rich salmon, you know — they're red") were added. It was stirred until it was very thick, taken off the heat and placed on a piece of bark, then left to dry. Finally, it was powdered and was then ready for use as a paint (ML). Usually, it was the bark of the alder, steeped in water, that was used as a dye; it yielded colours ranging from red to reddish-brown (Ray 1932:37; NF). Buckskin was coloured by rubbing alder bark directly on it (Lerman 1952-54).



Fig. 63. Paper birch (*Betula papyrifera*)—Robert D. Turner

Young alders, about one metre (three to four feet) high, were used to make a medicine for a woman at childbirth. On the day her baby is due, the mother eats nothing. Her grandmother, or mother, boils the top of the alder, leaves and all, and gives the brew to her to drink. It has a bad, bitter taste, but she drinks a big cupful to help “clean her out” after the baby is born. Afterwards, she drinks a brew of alder boiled with “red willow” (*Cornus stolonifera*) or grey willow (*Salix* spp.). She takes as much of this as she can for 10 days after the baby is born. After that, she can drink other kinds of medicine (ST). Children with a poor appetite were given a tonic made by steeping the top of a young alder in water (ML). The bark was boiled and the liquid used to wash sores, and the “sap wood” was dried and powdered and applied to sores (Ray 1932:220).

Paper Birch and Western Birch (*Betula papyrifera* Marsh. and *B. occidentalis* Hook.)

small, brown-barked birch: kwekwlin (ST; ML)

brown paper birch, with usable bark: p'ina7 (ST) (also refers to birch-bark basket)

big white paper birch: kwlhin (ST; Lerman 1952-54)



Fig. 64. Northern Okanagan birch-bark basket—D. I. D. Kennedy (Nat. Mus. of Man, Ottawa, artifact II-B-17)

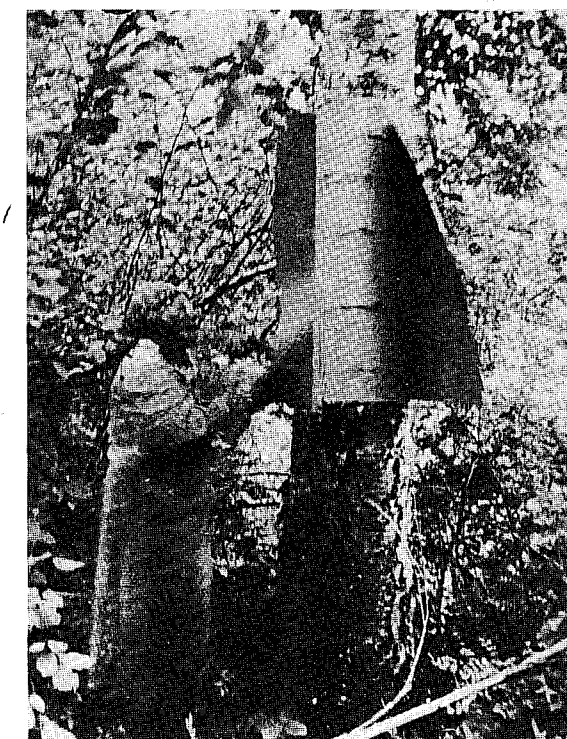


Fig. 65. Woman removing birch-bark from tree, Colville Indian Reservation, circa 1938 (Nat. Arch. of the U.S., Wash. D.C., Record Group 75, File 5054-1938-031)

According to ST there are three kinds of birch. One, called “kwekwlin”, is very common; it grows everywhere, but its bark, which is brown, does not peel off (this is probably *B. occidentalis*). It was not used, except as a fuel. The other two (probably both *B. papyrifera* or *B. occidentalis* x *papyrifera* hybrids) have tough bark which peels off horizontally and was used to make baskets, cradles, and canoes. One, called “kwlhin” (this term is not used by NF or LP), is large with white, paper-like bark and the other, called “p'ina7”, is a medium-sized tree with solid brown bark (however, both NF and LP state that “p'ina7” has white bark). These grow only in certain locations, such as on the west side of Okanagan Lake about three to four kilometres (two to three miles) up the creek between Westbank and Vernon — they are most common from Kelowna

northwards (ST). Whiteman Creek on the Okanagan Indian Reserve is called “*nkw̓lhinm*” (‘having birch’) (JA; ML; Lerman 1952-54) and a valley south of Lumby is called “*a7klh-p’ina7*” (‘place of paper birch’) (JA). An area, now inundated, on the east side of the Sanpoil River near its former mouth was called “*kwekw̓lhin*” (‘birch’) because of the abundance of these trees there (Bouchard and Kennedy 1979).

Birch bark was harvested at any time of the year, although the best bark was obtained in early summer. Two horizontal cuts are made around the tree, one high and one low and a single longitudinal cut is made between them. The bark is then peeled off in one piece. A good tree was cut down so that all the bark could be stripped off. The frame of a birch-bark canoe was made with willow or cedar withes, and the seams were sealed with pitch (ST; Lerman 1952-54; Elmendorf 1935-36). Twisted willow-bark cord was used to sew the bark to the frame. Extra layers of birch bark were used as reinforcement on the bow end of the canoe (Elmendorf 1935-36). Birch-bark baskets are watertight and were used mainly for cooking, but also as containers for berries, roots, and other foods (ST; Hill-Tout 1911:132). Elmendorf (1935-36) records that the Lakes people sometimes boiled mountain goat hair with the inner bark of birch, to colour the hair brown.

Hazelnut (*Corylus cornuta* Marsh.)

nuts: *k’ip’xwa7* (ST; ML; Ray 1932:37, 104; Teit 1930:239; Elmendorf 1935-36) (also refers generally to any nut)

bush: (s)*k’ep’xw̓lhp* (ST; ML)

Teit (1930:239) applies the term for hazelnut bush, “*k’ep’xw̓lhp*”, to the bastard toadflax plant. Hazelnuts were picked from the bushes in October, or picked up from the ground after they had fallen. The husks were removed by placing the nuts in a hole and covering them with wet mud. After 10 days they were dug up and the husks had rotted away. An easier method was to search hollow logs and trees for squirrel caches; cached nuts were already cleaned of their husks. The nuts were stored in their shells. Sometimes they were pulverized before being eaten, but often were eaten whole (Ray 1932:104). Elmendorf (1935-36) records that the Lakes people gathered hazelnuts with buckskin mittens to protect their hands, then placed a sack of them in a hole in the ground and husked them by pounding down on them with a pole. The nuts were separated from the husks with the aid of a little flat board, down which the nuts rolled easily but not the husks. The nuts were cracked between rocks and the “meats” crushed into a pulp which was mixed with bear oil or pieces of bear grease or meat and sometimes berries (such as huckleberries) or cooked camas bulbs. This mixture was formed into little cakes and laid on slabs by the fire to dry. It could also be stored in a length of intestine. It was eaten as relish, like butter. The nuts did not keep well if stored alone after being crushed. However, they could be stored in the shell and eaten anytime, like peanuts (Elmendorf 1935-36). The inner bark was soaked in water to make a blue dye for colouring basket materials (Ray 1932:37). Hazelnuts were a common trading item (ST; Lerman 1952-54).

A place about 13 kilometres (eight miles) south of West Fork, Washington, between Republic and Keller, is called “*a7klh-k’ep’xw̓lhp*” (‘place of hazelnut bush’) (Ray 1932:21; ML). Another place on the south side of the Colville River, about one kilometre (one half to three quarters of a mile) east from the mouth, is called “*sntl’etl’k’ipuntn*” (tl’etl’k’ipunm ‘to gather hazelnuts from squirrel caches’; lit. ‘hazelnut-gathering place’) (ML).

Borage Family (Boraginaceae)

Burweed [*Lappula redowski* (Hornem.) Greene]

ts’ep’ts’ap’*k’ewitsya7* (ST) (see also bedstraw); or ts’ap’*k’ewitsya7* (ST; ML) (ts’p’ak’ ‘sticky’)

This plant was not used for anything. It is named after its small, sticky fruits, which are covered with minute hooks to aid in dispersal. Bedstraw is sometimes called by the same name (ML).

Stoneseed, or Gromwell (*Lithospermum ruderales* Dougl. ex Lehm.)

klhts’*álekw̓n* (ST; ML) (lhts’am ‘to whip’; -*álekw̓* pertaining to ‘wood’; -tn ‘instrument’) lit. ‘instrument for beating on wood’; or *siyáyt’s’kn* (NF; CP; Ray 1932:218) lit. ‘hard on top’
fuzz on the stems and leaves: *swixwáy̓t* (ST) (see also *Phacelia linearis*) (also refers to wood slivers)

Although Ray (1932:218) has identified “*siyáyt’s’kn*” as *Eriogonum heracleoides*, both NF and CP have used this term to refer to *L. ruderales*.

The fuzz on the stems can cause sores on the skin (ST). This plant was used as a charm to make it rain. It was pulled up and beaten violently against a log until drops of juice came out, and at the same time a chant was called out for rain to come. If one wants it to work very quickly, he would dip the plant in water and beat it on a headstone or cross in the cemetery instead of on wood (ST). Ray (1932:214) states that the leaves of “*siyáyt’s’kn*” could cause rain by being mashed and immersed in a basket full of water, and that the flowers of this same plant brought wind if they were pounded between rocks, dampened, and spread about. The roots were used to make a red dye (Teit 1930:218). Internal haemorrhaging could be stopped by drinking an infusion of the roots (NF). It was believed that a fisherman would have good luck if he drew his line through a handful of this plant (ML).

Long-flowered Mertensia (*Mertensia longiflora* Greene)

sngatsínas *xágxag* (ML only) lit. ‘crow’s ear-ring’

This plant was apparently not used by the Okanagan-Colville (ML).

Western Mertensia (*Mertensia platyphylla* Heller)

nkw̓kwágykn (ML only) lit. ‘blue/green top’

The name appears to be a general one for several different blue-flowered plants (cf. bachelor’s button ‘little blue/green top’, and monkshood). This plant was not used for anything (ML).

Mustard Family (Brassicaceae or Cruciferae)

Drummond’s Rock Cress (*Arabis drummondii* Gray)

The Okanagan-Colville name was not remembered. The entire plant was boiled to make a medicine for the kidneys and bladder and for pains in the lumbar region. This decoction was also said to cure gonorrhoea (Teit 1930:294).

Hoelboel’s Rock Cress (*Arabis hoelboellii* Hornem.)

sts’ets’a7kw’*úla7xw* (ST) (sts’e7ák’w’ ‘flower’; -*úla7xw* ‘ground’) lit. ‘flowers on the ground’
(see also catch-fly and fringe-cup)

ST knew of no use for this plant.

Few-flowered Rock Cress (*Arabis sparsiflora* Nutt.)

nweswestípla7 (HR only) (nwist ‘high up’) lit. ‘high up from the base’

The whole plant was mashed up and steeped in hot water and the infusion used as an eyewash for sore eyes. As a cure for diarrhoea or heartburn, three roots were chewed, one at a time, and the juice swallowed (ML; WA). This plant was also used for birth control, but the details were not recalled (ST).

Turnip (*Brassica rapa* L.)

lagwúla7xw (ST) (legám 'to pierce, poke into') lit. 'poked in the ground'; tanáps (LP; NF; CP) (from English "turnips")

Turnips were introduced by Europeans and became a popular vegetable among the Okanagan-Colville.

Cabbage (*Brassica oleracea* L.)

patsklh (ST; ML) lit. 'leaf' — general; kapíts (LP; NF; CP) (from English "cabbage")

Cabbage was introduced by Europeans and has been a popular vegetable among modern Okanagan-Colville people.

Western Tansy Mustard [*Descurainia richardsonii* (Sweet) Schulz.]

snPELLÍWS (ST) (pelál 'to grow'; -iws 'middle') lit. 'growing amidst (other plants)'

The above is a general name for weeds and other "worthless" plants (cf. asparagus).

Rough Wallflower [*Erysimum asperum* (Nutt.) DC.]

ngawgawKín (ML)

This flower is not known around the Similkameen and Penticton areas, only farther south. The whole plant was pounded and applied directly to open, fresh wounds. It causes the blood to coagulate. It is only effective when freshly dug (ML).

Yellow "Mouse-ear" Mustard (*Lesquerella douglasii* Wats.)

(s)tkw'ekw'xwn7ína7 (ST; ML) (kw'ík'xwna7 'mouse') lit. 'mouse ears'

The above name was also applied to a non-flowering specimen of *Eriogonum niveum*. As a cure for diarrhoea, the roots were chewed, one at a time, the juice being swallowed and the pulp spat out (WA). This was also effective for "heartburn" (ML).

Water-cress [*Rorippa nasturtium-aquaticum* (L.) Schinz. & Thell.]

nxesxastátkw (ST; AL); (n)xastátkw (ML) (xast 'good') lit. 'good in the water'; or nxastátkwa (LP; NF)

This plant was introduced by White prospectors (ML). It was often planted around springs and water-courses, such as at the spring along Green Mountain Road, about 11 kilometres (seven miles) from Penticton. Another place where it grows, called "a7klh-nxastátkw" ('place of water-cress'), is along Highway 3 at the south end of Marron Valley (ST). It is a good emergency food; it is eaten raw as a salad green. The whole, fresh plants were applied directly to the forehead to relieve headache and dizziness (HR).

Cactus Family (Cactaceae)

Prickly-Pear Cactus [*Opuntia fragilis* (Nutt.) Haw. and *O. polyacantha* Haw.]

sxwiyína7 (ST; ML; Ray 1932:103; Spier 1938:29, 30; Teit 1930:239) lit. 'packing one's food along' [Ray (1932:103) translates this term as 'mice food']

The blooming of the cactus is an indication that saskatoon berries are ready to be picked (ST). Cactus flesh is a good food (ML; ST; Spier 1938:29). It can be gathered at any time of the year, even from under the snow. The spines are singed off in an open flame and the stems pit-cooked, or roasted in the coals or on a stick over the fire. A soup was made by mixing them with fat and boiling them (ML). The Southern Okanagan made cactus soup in times of famine (Spier 1938:29). Cactus is



Fig. 66. Prickly-pear cactus (*Opuntia fragilis*)—Nancy J. Tumer

especially valuable to old men; when they eat it, it helps them urinate more freely (HR). Cactus spines were used to make a fish hook when no bone was available for hooks. Two spines were joined together in the shape of a hook by tying them with Indian hemp and sealing the join with pitch (ML). The spines were also used as needles for piercing ears (Lerman 1952-54). A ring of cactus was placed around the supporting poles of a cache to keep mice and other animals from climbing up (Lerman 1952-54; Ray 1932:76).

Cactus was said to be a good eye medicine (Lerman 1952-54). It was also used as a poultice for skin sores and infections. The spines were singed off, the outer skin peeled off, and the inner pulp was pounded and mixed with pine pitch and placed over the affected area. It drew out the "bad stuff" (ML).

In Southern Okanagan mythology, Salmon threw the cactus onto the prairie and proclaimed that they would be food for the coming people who would burn off the spines and eat the flesh (Spier 1938:225).

Harebell Family (Campanulaceae)

Blue Harebell (*Campanula rotundifolia* L.)

slhk'w'álhk'w'elts sxwexweíám (ML only) lit. 'fool-hen's necklace'

ML knew of no use for this plant.

Honeysuckle Family (Caprifoliaceae)

Orange Honeysuckle [*Lonicera ciliosa* (Pursh) DC.]

kýrýirmntsút (ST) lit. 'tangled around itself'; tk'ets'kets'pínas i7 snína (ML) lit. 'owl's braids' (see clematis)

Hummingbirds like to suck the nectar from the flowers (ST).

Black Twinberry, or Twinflower Honeysuckle [*Lonicera involucrata* (Rich.) Banks ex Spreng.]

berries: stkeṁkēmexstús (ST); or stkeṁhexstálhk (ST; WA; LA) (skēmíst 'black bear') lit. 'black bear's face/eye' (first version) or 'black bear's fruit' (second version)
bush: stkeṁhexstílmix (ST; WA) lit. 'black bear's bush'; or stkeṁkēmexstíkt (ST; WA) 'black bear's branch'

The berries were not eaten; they were regarded by some as poisonous, although bears liked to eat them. The branches were used to make a medicine for a mother after childbirth (ST). Elmendorf (1935-36) records that the Lakes and Spokane people made a tea from the bark of a shrub called "bearberry" (probably this species) which was taken as a physic. The bark was placed in a birch-bark basket and boiling water was poured over it.

Red Twinberry (*Lonicera utahensis* Wats.)

berries: kts'amli7sús (ML; WA) [ts'miws 'bar-bell shaped' (referring to the shape of the double berry)]; or ts'ets'mili7s (LP)
bush: kts'amli7sílmix (ML; WA; LA; LP)

This bush grows only in the mountains (ML; WA). The berries, though sparse, are good to eat, and because they are so juicy can serve as an emergency source of water (LA). These berries ripen at about the same time as huckleberries and often are picked and eaten fresh along with huckleberries (LP; NF). The branches were steeped in hot water and the infusion used to wash sores and infections. About 12 to 20 branches, with leaves attached, were used to make this medicine. An infusion of six to eight branches in water was drunk as a mild laxative (ML). It was also taken as a tonic, to help the "changing of the blood" in spring and fall (LA).

Blue Elderberry (*Sambucus cerulea* Raf.)

berries: ts'kwikw (ST; ML; NF; Teit 1930:238; Ray 1932:102, 135; Elmendorf 1935-36) [ts'akwt 'a type of sour taste' (cf. also mountain-ash — *Sorbus sitchensis*)]
tree or bush: ts'kwekwílh (ST; ML; NF; Ray 1932:89); or ts'kwekwílmix (AL)

The berries, which ripen in September, were not highly regarded when eaten fresh, but long ago people used to break off bunches of them in November just before the first snows, clear away the ground beneath a ponderosa pine, spread a layer of pine needles over the ground, lay the bunches out on top, stems up, and cover them with a thick layer of pine needles. The needles were soon covered with a layer of snow, and all winter, people would go there and dig up the berries and eat them. ST says that's the only way they taste good. They didn't eat too many of them at once — "just enough to get the taste." The snow over the berries would be coloured pink by them.

Elderberries were also sometimes steamed with black tree lichen to flavour it (ST). LP has observed that this is the one berry that black bears don't eat. The Lakes people prepared elderberries in the following way: they dried and stored them or made them into juice by crushing them in a kettle with the hands, scooping out the pulp and seeds. The resulting juice was heated in a cooking basket with hot rocks before being used. It could be kept from day to day. Many kinds of berries, including wild gooseberries, Oregon grapes, and wild raspberries, were juiced in this way (Elmendorf 1935-36). The Southern Okanagan did not store elderberries, but boiled them and ate them immediately (Spier 1938:26). Nowadays elderberries are used to make syrup and preserves.

The pith in the stems was hollowed out to make tubes, useful for children's popguns and for the drinking "straws" used by girls at puberty (Lerman 1952-54; Spier 1938:112). (These uses are not recommended, as elderberry leaves and stalks are poisonous.) The Lakes people used the hollowed-out stems of elderberry as tubes to inflate animal intestines, which were often used as food

containers. Every household had one of these inflators, called "npiyúmn" (Elmendorf 1935-36). The stems were also used for making "flageolets" [called "klhelhxwálek" (LP)], musical instruments about 35 centimetres (14 inches) long (Ray 1932:135; Spier 1938:64; AL). The branches were satisfactory for making arrows for small game or for temporary use (Ray 1932:89). Dry elderberry bushes were sometimes used by the Lakes people as a fuel for smoking buckskin (Elmendorf 1935-36). The dead stalks could be used to make a steam bath for arthritis or rheumatism (LP).

Waxberry, or Snowberry [*Symphoricarpos albus* (L.) Blake]

berries: stemtemni7álha7k (ST; ML; Elmendorf 1935-36; Teit 1930:239; Lerman 1952-54) lit. 'corpse's little fruit'; or stemtemni7álhk (LP; NF) lit. 'corpse's fruit'
bush: stemtemni7hílh7p (ST; ML) lit. 'corpse's little plant'; or stemtemni7ílh (LP; NF; Ray 1932:220) lit. 'corpse's plant'

The berries are considered poisonous, but ruffed grouse and other birds liked them (ML; LA). The branches were tied together in a bundle to make a broom (WA; Lerman 1952-54; Elmendorf 1935-36). A brew made by boiling the entire plant — branches, leaves and berries — was drunk as a physic, to clean out the system (LA). The fluid obtained by boiling water in which the leaves of waxberry had been placed, was used to relieve cases of retention of urine in men and animals (Ray 1932:220). The berries were mashed and used as a poultice for children's skin sores (LA) or to relieve itching (Lerman 1952-54; LA). They could be stored for winter in their mashed state (Lerman 1952-54; LA). They were mashed and mixed with a small amount of warm water and put into the eyes to cure sore, running eyes (HR; Ray 1932:220), or mashed and rubbed in the armpits as an anti-perspirant (Ray 1932:220; NF). The roots could be steeped in hot water and used as an eyewash (NF) or boiled and drunk for an illness of an "indefinite character" (Ray 1932:220).

High-bush Cranberry [*Viburnum edule* (Michx.) Raf.]

berries: nmaḱtu7 (ST; JA)
bush: nmaḱt7ílh (ST; JA)

This bush is common around Vernon (JA; ST). The bushes resemble thornberry bushes and the orange berries resemble red chokecherries, but are rather rare to see. They are hard until the first frost in the fall; then they turn soft and are ready to pick and eat, although they are still sour (ST; JA).

Pink Family (Caryophyllaceae)

Catchfly, or Bladder Campion (*Silene menziesii* Hook.)

tsagsemtságs (HR only) (tsags 'rattling noise'); others called it by the general term sts'ets'a7kw'úla7xw (sts'e7ákw' 'flower') lit. 'flowers on the ground' (see also *Arabis hoelboellii* and *Lithophragma tenella*)

The name given by HR refers to the rattling sound made by the fruits when dry. The root was used to make a very strong eye medicine. It was pounded, steeped in hot water, and the infusion used as eyedrops for cataracts when they first appear. It stings the eyes, but is said to be very effective. It should be used only every other day because it is so strong (HR).

Boxwood Family (Celastraceae)

False Box [*Paxistima myrsinites* (Pursh) Raf.]

skwekweíkweisílmelx (ST; ML); or skwekweisílmelx (ML) (skweisílmelx 'kinnikinnick bush') lit. 'little kinnikinnick bush'

This bush is a good winter food for deer (ML; LP). The branches were boiled to make a tea for colds, tuberculosis, and kidney troubles. Since the bush is evergreen, the tea could be made at any time of the year (ST). Lerman (1952-54) describes a bush which seems to fit the characteristics of this plant: a bush growing in the mountains, about 75 centimetres (two and a half feet) tall, with dark green, shiny leaves shaped like kinnikinnick leaves. There are two forms of it, one, which has blossoms, considered "male", and one without blossoms, considered "female". Women who did not want to have children would eat the leaves of the male plant, after menstruation, for a year. This assured permanent barrenness, but barrenness from any other cause could be counteracted by eating the leaves of the "female" plant. The point of the leaf was opened with a sharp twig, and the leaf was then blown full of air and swallowed. If the leaf could be blown up without bursting, the woman would conceive. Some women could never blow up a leaf without bursting it; they would always be barren. This treatment was originally learned from a female Indian doctor from the Puget Sound area who made a trip to Wenatchee every year. Women would pay as much as a blanket or a beaded dress to obtain a small bunch of the leaves (Lerman 1952-54).

Goosefoot Family (Chenopodiaceae)

Beets (*Beta vulgaris* L.)

kwelkwil (ST; ML; LP) (kwil 'red') lit. 'red all over' (see also *Castilleja hispida*)

Beets were introduced by Europeans but were commonly cultivated by the Okanagan-Colville within the last century.

Pigweed, or Lamb's Quarters (*Chenopodium album* L.)

snpellíws (ST) (pelál 'to grow'; -iws 'middle') lit. 'grows amidst (other plants)'

This is a common introduced weed. The name is a general one (cf. asparagus).

Morning Glory Family (Convolvulaceae)

Field Bindweed (*Convolvulus arvensis* L.)

ntk'ewlxíxsn (ML only) lit. 'climbing up along rock'; or n7akw7akwtíxsn (ML only) (ukwt 'to crawl'; -isxn pertaining to 'rock') lit. 'crawling among the rocks'

ML used these two names on two different occasions. The first term was verified with a specimen; the second was identified from ML's description of "a vine, resembling morning glory, which grows up to 2.5 metres (eight feet) long and climbs along rock crevices." The stems were used as a "pack rope" for carrying birds and marmots home after hunting (ML). This plant is actually a European weed.

Dogwood Family (Cornaceae)

Red-osier Dogwood, or "Red Willow" (*Cornus stolonifera* Michx.)

berries: stiktsxw (ST; ML; Spier 1938:29; Teit 1930:238; Ray 1932:102; Elmendorf 1935-36)

bush: stektektsxwílhp (ST; ML; Ray 1932:102; Elmendorf 1935-36; Lerman 1952-54; Spier 1938:166; Watkins 1970:32; Gabriel 1954:29); or stektsxwílhp (AL; NF; LP).

The berries are considered to be "good eating", although they are very bitter. They ripen in late summer, at the same time as chokecherries. They were pounded and mixed with chokecherries or saskatoons to sweeten them, or were boiled and eaten alone (ST; Spier 1938:25). They were boiled only if eaten alone, since boiling the mixture would nullify the sweetening influences (Spier 1938:25). The Lakes people seldom ate them but when they did it was raw, as a kind of "relish" (Elmendorf 1935-36). NF has observed that black bears like to eat these berries. The inner bark was scraped off, dried over a fire, and mixed with kinnikinnick or tobacco for smoking. Only a small quantity is needed; it tastes good and is also a good cold medicine (Lerman 1952-54; WA).



Fig. 67. Red-osier dogwood (*Cornus stolonifera*)—Nancy J. Turner

The branches were used in making fish traps, spatulas, and other items, and the larger limbs for frame poles (ST; HR; Elmendorf 1935-36). Old branches were used in smoking hides (NF). The bark, like that of various true willows, was twisted into a type of rope, called "skserálek'w", used to lash fish traps, raised caches, and other structures (ST; HR). The preparation of the rope by the Lakes people is described as follows:

The bark was stripped off in spring and tied up in great bunches. It was then dried, and was rubbed while drying to soften it. It was used to sew around the gunwales of canoes, to wrap the ends of two poles together in a canoe. . . (Elmendorf 1935-36).

The powdered bark was mixed with the resin of cottonwood buds to make a red paint (Lerman 1952-54).

"Red willow" was an important medicine and tonic. Hunters wishing to purify themselves inserted a "red willow" stick, bent into a "U"-shape, down their throats to cause vomiting (Lerman 1952-54). A tea made by boiling the young sticks in water was drunk in quantity in the sweathouse to cause vomiting to relieve an upset stomach condition (LA). Coughing caused by consumption was eased by drinking about "two quarts" (2.3 litres) of this tea in the evening and two quarts more in the morning (Spier 1938:165). It was also drunk to cure a poison ivy rash (LA). The inner bark is said to be the real medicinal principle. The bark alone, or the entire branch, could be boiled to make medicine (ST). The outer bark was scraped off with a bone knife and the inner bark boiled with chokecherry bark or alder bark ("green willow") to make a medicine for any kind of sickness. It is drunk every day, just like water or tea, whenever one is thirsty. It heals the body, clears the blood, helps circulation, and heals sores and rashes. After childbirth, a woman drinks "red willow" tea every day for an entire year, "just like water". It tastes very strong at first, but becomes increasingly easy to drink. It is drunk first thing in the morning, before lunch, before supper, and before bedtime. It helps clean out the womb, is good for the blood, and keeps one from having children too frequently (ST; Lerman 1952-54). A "heart condition" could be cured by drinking an infusion of the inner cambium scraped from young bushes (NF).

Washing water made by boiling “red willow” wood and bark, alone or mixed with chokecherry wood and bark, was formerly used to rinse the skin, hair, and scalp. It eliminates dandruff and cures falling hair and itchy scalp thought to be caused by “little worms” in the hair roots (ST). An even stronger medicine, to be used as a last resort, was made by boiling cow parsnip roots with “red willow” and chokecherry wood and bark. This was also used for any sores or scabs which would not heal. ST recalls that when she was 12 or 13 years old, there was an old woman who used to wash her head and skin with “red willow” tea. The old woman lived to be well over 100 years old and still had good eyes and hair that was only half grey. ST attributes her longevity to her use of “red willow”.

The inner bark was mashed and used as a poultice on the back and belly to “heal a woman’s insides” after childbirth (ST). It was also used for irritated skin, rashes, cuts, bruises, toothaches, and for steaming sore throats (Gabriel 1954:29). For a headache it was bound against the temples and stuffed into the nostrils (Spier 1938:166). A baby was steam-bathed over the bark, placed on hot rocks, to protect it from evil influences that could result if its parents should happen to see a corpse or carcass (Lerman 1952-54). The inner bark, either alone (NF) or mixed with goose oil (LA), was used to make a poultice for a chest cold in babies (NF; LA). The berries were rubbed into the scalp every so often to prevent greyness of the hair (LA).

Stonecrop Family (Crassulaceae)

Stonecrop (No. 1) (*Sedum lanceolatum* Torr.)

kweřkweři7lhmix (ML only) (kweři7 ‘yellow/green’) lit. ‘little yellow/green plant’; or snts’its’kpna7 (HR only) (see dwarf juniper).

The stems, leaves, and flowers were steeped in hot water and the infusion drunk as a laxative. This liquid was also used to clean out the womb of a woman after childbirth. The leaves could also be chewed raw as a laxative (ML). The second Okanagan-Colville name given refers, like that of dwarf juniper, to the rough inner part of the upper lip of a deer, which stonecrop leaves are said to resemble (HR).

Stonecrop (No. 2) (*Sedum stenopetalum* Pursh)

t’et’ikwlmelx (ML) (t’ikw ‘burst’) lit. ‘bursting plant’

The whole plant was steeped in a small amount of hot water and the infusion was drunk as a cure for venereal disease (ML).

Cucumber Family (Cucurbitaceae)

All of the following fruits or “vegetables” were introduced by Europeans and have been used by the Okanagan-Colville since the mid-1800’s:

Watermelon (*Citrullus vulgaris* Schrad.)

limenó (ST; NF; LP) (from French “les melons”); tk’ik’ágyts’a7 (ML) (k’agý ‘variegated colouring or marking’) lit. ‘variously marked outer covering’ (see also cantaloupe)

Cantaloupe (*Cucumis melo* L.)

tk’ik’ágyts’a7 (ST) (k’agý ‘variegated colouring or marking’) lit. ‘variously marked outer covering’ (ML used this name for watermelon); or kǵaxǵáxts’a7 (ML; AL; NF; LP) (ǵax ‘striped mark’) lit. ‘little striped marks on the outside’

Squash (*Cucurbita pepo* L.)

kts’imts’a7 (ST; ML) (sts’im ‘bone’) lit. ‘bony covering’

Pumpkin (*Cucurbita pepo* L.)

kwerkweři7ts’a7 (ST; ML) (kweři7 ‘yellow/green’) lit. ‘yellow/green covering’

Oleaster Family (Elaeagnaceae)

Silverberry (*Elaeagnus commutata* Bernh.)

berries: p’úkwi7 (ST; ML; HR; Spier 1938:63); or p’úkwa7 (ST; ML; Lerman 1952-54)

bush: p’ukwi7ilhp (ST; ML; HR; Ray 1932:239; Teit 1930:239); or p’ukwa7ilhp (ST; ML)



Fig. 68. Silverberry (*Elaeagnus commutata*)—Robert D. Turner

This is considered to be “a type of willow” although it is botanically unrelated. The berries are edible (HR). They were used to make beads for necklaces and clothing decoration (Teit 1930:239). The inner bark was twisted to make ropes, sacks, blankets, and clothing, as well as soapberry beaters. Three bundles, each about 13 centimetres (five inches) thick, were worth a blanket. The bark was dyed with Oregon grape and used to imbricate clematis bags (HR; Lerman 1952-54; Spier 1938:63). Rope made from silverberry bark, like that from willow bark, was called “skserálekwa” (HR).

Soapberry, Foamberry, or Soopolallie [*Shepherdia canadensis* (L.) Nutt.]

berries: sxwusm (ST; ML; Lerman 1952-54; Spier 1938:29; Teit 1930:239; Gabriel 1954:26; Elmendorf 1935-36; Ray 1932:103) (xwus ‘foam’)

bush: sxwesmílhp (ST; ML; Lerman 1952-54; Gabriel 1954:29; Elmendorf 1935-36)

These popular berries were gathered, and to a certain extent are still gathered, from May to July and whipped with water into a pinkish-white froth resembling beaten egg-whites. A beater, called “txwuskstn” (lit. ‘causing foaming’) was used to make this froth, called “Indian ice-cream”. In the old days, at least, birch-bark containers (ST; ML) or cedar-root baskets (Spier 1938:25) were used to hold the foam. Sometimes only the bare hands and fingers were used to whip the berries. First the fruits were crushed with the fingers and the excess seeds were removed (Elmendorf 1935-36). The berries, which are picked by placing a large cloth underneath the bush and beating it (CP), are very bitter, and the froth was usually sweetened with Saskatoons or strawberries (Lerman 1952-54; Spier 1938:25). Nowadays a little sugar is used (ST). The berries cannot come in contact with grease or they will not whip. They could be dried for two to three days, then stored for later use,



Fig. 69. Soapberry (*Shepherdia canadensis*)—Robert D. Turner

when they were rehydrated by soaking in warm water (Spier 1938:25). Indian ice-cream is considered a delicacy. It was prepared in the evening when friends came to call and was eaten with horn spoons (Spier 1938:25). Sterling Creek, and its valley, on the west side of the Similkameen River about eight kilometres (five miles) northwest of Hedley, is called “a7klh-sxwesmílhp” (‘place of soapberry bushes’) (HR).

A tea, made by boiling the branches, was drunk as a laxative, a tonic, or a stomach medicine (Teit 1930:294; Gabriel 1954:29; Lerman 1952-54). A decoction of the branches of soapberry, saskatoon berry, and “red willow”, was drunk by a woman after childbirth as a temporary contraceptive; it insured that her babies would come at least two years apart (Lerman 1952-54). The branches could be boiled and the solution used as a shampoo (NF).

A person who is being jinxed by someone can make a brew of soapberry and wild raspberry branches and drink it to change his luck. This treatment must be carried out in complete secrecy and privacy. The brew should be prepared at about 4:00 in the morning and drunk the next evening at 9:00 or 10:00 and every morning and evening thereafter for four or eight days. One can also bathe in it and wash his hair in it. When he uses it he should talk to it and ask it to help cleanse him and bring him luck. “Before you know it everyone likes you and you have good luck” (ST).

LPR was once hunting with his uncle when the uncle wounded a deer, which ran away leaving a trail of blood after it. His uncle chewed some leaves of the soapberry bush and spat them out on some of the deer’s blood. This was to cause the blood in the deer’s body to “foam up” just as soapberries foam up, and the deer was “stopped” within a very short distance (LPR).

The area formerly along both sides of Rickey Rapids, in the Columbia River about 16 kilometres (ten miles) south of Kettle Falls, was called “a7k-sxwúsm” (‘place of soapberries’) (Bouchard and Kennedy 1979).

Heather Family (Ericaceae)

Kinnikinnick, or Bearberry [*Arctostaphylos uva-ursi* (L.) Spreng.]

berries: skwlis (ST; ML; Elmendorf 1935-36; Lerman 1952-54; Spier 1938:30, 193; Teit 1930:239; Ray 1932:102; Watkins 1970:32) (kwil ‘red’)

plant: skweisílhmeix (ST; ML; Elmendorf 1935-36; Lerman 1952-54; Spier 1938: 66, 193; Watkins 1970:32)

The berries were eaten; they taste like a crabapple, but drier. They ripen in the fall. Some localities have good tasting berries, while in other places they have hardly any taste to them. Children used to eat them raw, but usually they were boiled in soups (Spier 1938:26) with venison or salmon. They were not generally stored (ST; Lerman 1952-54), although Ray (1932:102) and NF state that the Sanpoil-Nespelem used to dry them, and Elmendorf (1935-36) records that the Lakes people crushed the berries to make cakes that were brought out with salmon eggs on special ceremonial occasions. The leaves were used as a tobacco. They were taken off the branches and “toasted” on a flat stone beside a fire until crisp and brown. ST’s grandfather used kinnikinnick leaves frequently. He would mix the leaves with shavings from plug tobacco and smoke it in his pipe. Sometimes if he smoked it “too hard” he would become unconscious. It has a sweet, pleasant smell (ST). The dried leaves could be stored in a buckskin bag (Lerman 1952-54). The Lakes people crushed the leaves within buckskin bags by pounding them with rocks (Elmendorf 1935-36).

The berries and leaves were used to counteract diarrhoea (Watkins 1970:32). A decoction of the leaves and stems was used as a wash for sore eyes, and was also taken as a tonic for the kidneys and bladder and as a remedy for spitting of blood (ST). As a kidney medicine and blood tonic the decoction often included Oregon grape sticks. This decoction, when brewed properly, has a pleasant taste, like a tea (ST). It was also used as a hair tonic, to eliminate dandruff and scalp diseases, and as a wash for skin sores. The leaves were often dried, powdered, and dusted on the skin after it was washed with the decoction of leaves and stems of kinnikinnick (Ray 1932:220).

Little Prince’s Pine, or Little Pipsissewa [*Chimaphila menziesii* (R. Br.) Spreng.]

tkka7ka7lhíika7st (ST; ML) (ka7lhís ‘three’) lit. ‘a bunch of little three-leafed ones’ (cf. *C. umbellata*)

ST and ML recognized the close relationship between this species and the larger *C. umbellata*. Tkka7ka7lhíika7st was not used.

Prince’s Pine, or Pipsissewa [*Chimaphila umbellata* (L.) Bart.]

tka7ka7lhíikst (ST; ML; Gabriel 1954:29; Watkins 1970:31) (ka7lhís ‘three’) lit. ‘a bunch of three-leafed ones’; or keweswexníika7st (LP; NF; CP) (wisxn ‘long’) lit. ‘long little leaves’

The first name, although originally applied to this species by ML and ST, was later applied to a specimen of mountain valerian (*Valeriana sitchensis*) by ML, LA and WA. Gabriel (1954:29) and Watkins (1970:31) actually identified the plant of this Okanagan-Colville name as “sarsaparilla” (*Aralia nudicaulis* L.), but our informants (ST and ML) did not recognize sarsaparilla when shown a specimen. LP, NF and CP were very positive in their identification of “keweswexníika7st” as *C. umbellata*.

The roots and leaves of prince’s pine were steeped in hot water and the infusion drunk to “clean out” the kidneys, as a blood purifier, and for tuberculosis and long-lasting colds (ST; HR). The whole plant could also be boiled and the decoction drunk as a blood purifier and appetizer (LP; NF). The roots of the plant identified by Gabriel as “sarsaparilla”, were boiled alone or with those of Oregon grape to make a tonic and blood purifier said to be good for acne (Gabriel 1954:29).

False Labrador Tea (*Ledum glandulosum* Nutt.)

seíáx̣ts i7 x̣wux̣wtl' ṃilhp (ST) lit. 'friend/cousin of Labrador tea' (cf. also flat-topped spiraea)

This bush was considered to be just like the real Labrador tea, but with no smell. It was not used to make tea; ST said that in legendary times it "lost out" to the real Labrador tea in "working to help people".

Labrador Tea, Hudson's Bay Tea, or Swamp Tea (*Ledum groenlandicum* Oeder.)

x̣wux̣wtl' ṃilhp (ST; ML; Lerman 1952-54; Teit 1930:294) [x̣witl' 'to break a limb (plural)']
lit. 'small breaking-limbs plant'

The branch tips (leaves, twigs and all) were broken off, dried, and steeped in boiling water to make tea, just like real tea is made. It has a very pleasant aroma and taste (ST; ML). It was also said to be good for the kidneys (HR). A certain mountain basin northwest of Inchelium, between Grizzly Mountain and White Mountain, is called "ṇx̣wux̣wtl' ṃilhpm" (ML), or "a7klh-x̣wux̣wtl' ṃilhp" (AL) after this species.

Pinedrops (*Pterospora andromedea* Nutt.)

seí7st (ML) (saít 'lost') lit. 'lost arrow'

ML identified this plant from a colour photograph. He described it as a red-stalked plant 60 to 90 centimetres (two or three feet) high, without leaves, growing only in ponderosa pine forests. Hart (1974) states that *P. andromedea* is called 'Coyote's arrow' in Flathead. On another occasion ML applied this term to a specimen of pinesap (*Hypopitys monotropa* Crantz.), but since this is a very low plant, he was probably mistaken in this case (see also "npeḳwki7sḳáxa7tn" in the section on Unidentified Plants).

Four of the whitish, carrot-like roots of "seí7st" were steeped in hot water and the infusion drunk as a cure for gonorrhoea (ML).

White Rhododendron (*Rhododendron albiflorum* Hook.)

ST did not recognize this montane shrub, and ML confused a specimen of it with red twinberry (*Lonicera utahensis*). Later ML called *R. albiflorum* "seíáx̣ts i7 x̣wux̣wtl' ṃilhp" (ML; LA; WA) (lit. 'friend/cousin of Labrador tea') and said the leaves were used to make tea just like the real Labrador tea [actually, such a tea could be poisonous (cf. Kingsbury 1964:255)].

Mountain Blueberry, or Dwarf Blueberry (*Vaccinium caespitosum* Michx.)

berries: sesápt (ST; ML; Teit 1930:239; Ray 1932:102)

bush: sesptilhṃix (ST; ML)

late crop of whitish berries: k'lhpa7ḳáxen (LA) (piḳ 'white'; -áxen 'next in order'); or npeḳpḳáxen (NF; LP)

This low-bushed blueberry grows in mountainous areas along with huckleberries (*V. membranaceum*). The berries are very good to eat, but are difficult to pick because they are so close to the ground. They were formerly picked with combs made of salmon backbones. ST remembers going to pick them when she was young. She lay on the ground, filled her hands with them, and ate them fresh. A long time ago these berries were dried just like huckleberries (NF), although Spier (1938:25) states that they were not dried by the Southern Okanagan. Sometimes they were mixed with Saskatoon berries or wild gooseberries and partially dried to a sugary mixture, or sometimes they were dried completely (Elmendorf 1935-36). Nowadays they are canned (ST). They are picked in late summer, along with huckleberries and grouseberries (*V. scoparium*). They have only a

three-week season (Elmendorf 1935-36). The Similkameen Okanagan used to get lots around the Nickel Plate mine area near Hedley, but now they have to go to around Tulameen, near Princeton, to get them because domestic sheep have depleted the supply at Hedley (HR). ST mentions a kind of red blueberry, also called "sesápt", which grows on the same type of bushes, possibly low bilberry (*V. myrtillus* L.). According to LA, when the first crop of blue-coloured berries falls off, a second crop of whitish berries grows on the same bushes. NF and CP recognize three types of berries of *V. caespitosum*: blue, red, and white. These were all picked and eaten. In former times the Indians used to burn-over land to improve the habitat for blueberries, huckleberries, tiger lilies, and game (ML).

Mountain Huckleberry, or Mountain Bilberry (*Vaccinium membranaceum* Dougl. ex Hook.)

berries: st'xalḥḳ (ST; ML; Elmendorf 1935-36; Ray 1932:102; Spier 1938:29; Teit 1930:239; Gabriel 1954:26; Griva 1902-3) (t'ax̣t 'sweet') lit. 'sweet fruit'

bush: st'exlḥḳilḥmẹix (ST; ML); or st'exlḥḳilḥp (NF)

These berries, which are still gathered and highly valued, grow in the same locations as mountain blueberries and were picked around the same time. They are scarce around Penticton; people there go to Princeton or Silver Star Mountain, east of Vernon, to get them (WA). Another area where they were obtained, called "a7klh-st'xalḥḳ" ('place of huckleberries'), is a mountain-side south of the Chopaka Indian Reserve and on the south side of the Similkameen River (HR). The Lakes people gathered them in great quantities (Elmendorf 1935-36). A favourite place where the Colville people gathered them is called "ktsestságṣkn", Lynx Creek Mountain west of Inchelium, between the Sanpoil River and Inchelium (ML). This area was also utilized for huckleberry-picking by the Sanpoil, as was Keller Butte Mountain, northwest of Keller, and Gold Mountain, "sx̣ep'úṭkn", northeast from Keller (NF). The Southern Okanagan gathered huckleberries from Moses Mountain and the hills west of Twisp (Spier 1938:25).

NF's mother used to say that when black hawthorn berries ripen in July, it is a sign that huckleberries are also ripening. Indians used to burn-over certain areas to improve the growing conditions for huckleberries and blueberries (ML).

Mountain huckleberries were an important food in the old days, and are still picked in significant quantities today. They were formerly eaten fresh with meat, partially dried, crushed and formed into cakes, or fully dried, although the Southern Okanagan apparently did not dry them until the Nez Perce people came to their Reservation and showed them how to dry and use them like Saskatoons (Spier 1938:25). Nowadays they are eaten fresh or canned, although a few people, such as NF and CP, still dry some. When the dried berries are to be eaten, they must first be soaked overnight in water and then boiled (NF).

Elmendorf (1935-36) recorded a myth concerning the origin of mountain huckleberries in Lakes country. Mountain Goat, who lived in the mountains far in the north, had three [or more] sons, the eldest of whom was at Kettle Falls courting Eagle's young girl. Mountain Goat sent his other sons to Kettle Falls, where a large celebration was going on. As their contribution, the younger mountain goats brought huckleberries. However, the mountain goats were very unpopular with the other animals and their contribution was set aside from all the other gifts, to be discarded by Eagle's grandmothers as unworthy. The younger mountain goats found their eldest brother sitting despondently by himself because the other animals disliked him. The younger goats planted a mountain huckleberry bush they had brought with them in front of him, and he ate all the berries from it. Immediately he felt better and recovered his self esteem. Eagle's suitors were to have a race in which the goats were to partake. Her grandmothers were just about to throw the gift of huckleberries into the river when they saw the mountain goats racing straight across the face of the cliff. By this daring act the goats won the other animals' esteem and the grandmothers, instead of throwing away the



Fig. 70. Mountain huckleberry (*Vaccinium membranaceum*)—Robert D. Turner

goats' basket of berries, took it to Eagle to taste and name. Eagle named the berries "st'xalhk" — 'sweet berry', and later married the eldest mountain goat. From the bush planted by the goats came all the mountain huckleberries found in that part of the country.

Grouseberry (*Vaccinium scoparium* Leiberg.)

t'át'ka7 (ST; ML; Spier 1938:30) (refers to berries and bush) (t'ak 'scattered, grass-like')

The relationship of these berries to blueberries and huckleberries is recognized (ST; ML; LP). They taste like huckleberries, but are even sweeter and juicier, although they are very small, like fish eggs or beads (ST). They are picked at the same time as blueberries and huckleberries and are found mostly at high altitudes (AL). Grouseberries were formerly combed from the bushes with a comb, called "stexmín", made from the backbone of a salmon (ML).

Pea Family (Fabaceae or Leguminosae)

Locoweed, or Milk Vetch (*Astragalus miser* Dougl.)

n7ap'nkíts'a7tn (ST; ML) (ip' 'to wipe'; -nkíts'a7 'inner side'; -tn causative) lit. 'wipes off the inner side'

When this plant blooms, it is an indication that pine cambium is ready to eat. After the pine bark has been stripped from the tree, locoweed is used to wipe off the turpentine-like juice from the inside; hence the name "n7ap'nkíts'a7tn" (ST; ML). The seeds, or "nuts", were eaten when found, but were not gathered specially (ML).

Lupines (*Lupinus sericeus* Pursh, *L. wyethii* Wats., *L. sulphureus* Dougl., and other *Lupinus* species)

kwikwikenílhmx (ST; ML; Lerman 1952-54) (kwagy 'blue/green') lit. 'blue/green-topped (low) bush'

long-flowered type: weswásxnkn (ML only) lit. 'long head'

The first name is used even for lupines that are white or yellowish, but is most commonly applied to blue-flowered species. Lupine is considered the "groundhog's" (marmot's) favourite food. When it blooms it is a sign that groundhogs are fat enough to eat (ST). The plants were used for bedding and as flooring in the sweathouse (ML). The seeds were pounded and mixed with water, then allowed to settle out, and the liquid was used as an eye medicine (ML). A decoction of *L. polyphyllus* Lindl. (?) was used as a kind of tonic (Teit 1930:29; Lerman 1952-54).

Alfalfa (*Medicago sativa* L.)

yíryírkín (ML; HR) lit. 'top end winding around'

Alfalfa was introduced from Europe. The Okanagan-Colville people named it after American vetch (ML). NF and CP placed alfalfa plants above and below black tree lichen and camas in underground cooking pits (see *Bryoria fremontii* and *Camassia quamash*) to impart a sweet flavour to the food being cooked. This practice was learned from a Spokane woman (NF).

Beans (*Phaseolus* spp.)

pins (ML; ST) (from English "beans")

Beans were introduced by Europeans and have been cultivated by the Okanagan-Colville within the last century.

Peas (*Pisum sativum* L.)

lipuwá (ST; ML; NF; LP) (from French “les pois”)

Peas, like beans, were introduced by Europeans and have been cultivated by the Okanagan-Colville within the last century.

American Vetch (*Vicia americana* Muhl.)

ýirýiríkin (ML; HR) lit. ‘top end winding around’

This plant is native to North America. Alfalfa was named after it (ML). The tops were soaked in hot water to make a bathing solution, for use in the sweathouse (ML)

Gentian Family (Gentianaceae)

Frasera (*Frasera montana* Mulford)

mesíneságy (ST); or mesíneságwi (ML; Ray 1932:222) [diminutive forms of meságy and meságyi7 — edible valerian (*Valeriana edulis*)]

This plant is shorter than the edible valerian, and the root was not eaten, but was used as a medicine for the first stages of tuberculosis. Four full-length roots were dug and steeped in hot water for six to seven hours and the liquid was drunk (ML). The term given by Ray (1932:222) refers specifically to the roots of this species, which he states were boiled and the tea drunk as a medicine for treating tuberculosis, haemorrhaging, and gonorrhoea, or taken by men to counteract the effects of inadvertently associating with a menstruating woman. This species occurs only in the southern part of the study area.

Geranium Family (Geraniaceae)

Sticky Geranium (*Geranium viscosissimum* F. & M.)

tákwá7 (ML; LA; LP; AL; Ray 1932:219)

ML originally applied this name to a non-flowering specimen of *Potentilla arguta*, but later both he and LA, and others, confirmed that the term applies to geranium. Ray (1932:219) substantiates this identification. ST recognized the name, but did not know to which plant it applied. The root was pounded, heated, and used externally as a poultice (ML). The leaves were crushed and applied to sores, and a tea made by boiling the roots was used to wash sore eyes (Ray 1932:219). For sore lips, a leaf was held between the lips for several hours and was said to bring relief within a day (Teit 1930:293).

Gooseberry Family (Grossulariaceae)

Golden Currant (*Ribes aureum* Pursh)

sts’irus (ML; R. May, pers. comm.; Elmendorf 1935-36; Nancy Flett) [also used by the Spokane to refer to domestic currants (Nancy Flett pers. comm.)]; or ia’takun (Ray 1932:103 — his transcription — this term was not recognized by LP, NF, CP or Nancy Flett)

This identification was made from a specimen collected by R. May in Spokane territory. “Sts’irus” is the Spokane term for *R. aureum* (Nancy Flett, pers. comm.). It does not grow in Okanagan-Colville territory (ML). ML’s people (Colville) used to travel to the area between Springdale and Little Falls, Washington, to get the fruit. The berries are red and said to be very sour — almost as sour as Oregon grape. They ripen from late June through July. They were eaten fresh, or dried, stored, and made into cakes later, being mixed with other berries. They were also crushed to make juice (Elmendorf 1935-36). According to Ray (1932:103), if the bushes were found

on the north side of the Columbia River in Sanpoil-Nespelem Territory, the berries were not eaten alone, lest illness result, but if mixed with other food, they were edible, and if growing on the south side of the Columbia, they could be eaten raw and alone without harm.

Squaw Currant (*Ribes cereum* Dougl.)

berries: yarkh (ST; ML; Elmendorf 1935-36; Teit 1930:239; Lerman 1952-54) (yir ‘round’)

[also used to refer to domestic currants (LP)]

bush: yerknílhmi7 (ST; ML); or yerknílh (NF; Ray 1932:102)

The berries ripen in June and July. They are rather bland, but were formerly eaten fresh, although old people used to say that if you ate the berries you would get either an “itchy bottom” or a bleeding nose (LA; WA; ST; LP), or a headache, bleeding nose, and sore eyes (Ray 1932:102; NF). NF’s mother told her that these berries could only be eaten when they were growing on “a certain type of bush” but NF doesn’t recall what such a bush looked like. They were not dried or stored. Grouse and pheasant like to eat them (ML). ST noted that this is the first plant to sprout green leaves in spring. The inner bark was steeped in hot water and the resulting solution was used to wash sore eyes (LA).

Wild Gooseberry (*Ribes irriguum* Dougl.)

berries: nt’it’meleps (ST; ML; Ray 1932:103; Elmendorf 1935-36; Dumbeck 1945; Teit 1930:239; Gabriel 1954:26) (t’imm ‘to grab with the fingers’) lit. ‘grabbing the neck’ (Elmendorf translates the term as ‘little-stemmed berry’); xsalhk (Ray 1932:102) lit. ‘good fruit’

bush: nt’et’mlpsílhmi7 (ST; ML); or xsilhmí7 (Ray 1932:102) lit. ‘good bush’

Although the description of the uses of *R. irriguum* in Ray (1932:102) is confirmed elsewhere, neither the term “xsalhk” for the berries nor “xsilhmí7” for the bush, is recognized by NF, CP, and LP. Ray (1932:103) uses the word others have given for *R. irriguum*, “nt’it’meleps”, to refer to a species that is found near streams and ripens in June and is eaten raw — this does not necessarily fit the description of *R. irriguum*.

These names also apply to garden gooseberries (ST). Wild gooseberries grow along creeks or in rockslides at the base of hills. They ripen in July and August and have a very pleasant, slightly tart taste. They were formerly dried and mixed with bitter-root for sale to the Thompson (ST). Elmendorf (1935-36) records that they were harder to dry than most berries. The Lakes people ate them green early in the season — from May to late June. Later they made them into cakes, alone or mixed with other berries, such as saskatoons and mountain blueberries. These cakes were partially dried and could be kept for some time. The berries were also crushed, like blue elderberries and Oregon grapes, and made into juice, which was heated with hot rocks before use (Elmendorf 1935-36). NF recalls that her mother used to eat wild gooseberries fresh. Nowadays gooseberries are canned. They don’t require much sugar. Bears also like to eat them (ST).

Swamp Gooseberry [*Ribes lacustre* (Pers.) Poir.]

kewu7pu7pús (ML; WA; ST; Teit 1930:239; Lerman 1952-54) (wap ‘hair; growth’) lit. ‘hairy berry/face’; or xaxagáylhp (ST; ML; Ray 1932:218) (xaxágt ‘menthol taste’) lit. ‘menthol taste bush’ (see also devil’s club)

It appears that both of these names refer both to the bush and to the berries. Ray (1932:218) identified “xaxagáylhp” as “wild mint” but was probably mistaken. Lerman (1952-54) identifies “kewu7pu7pús” as “bear-berries” and states they are “like gooseberries”. The term “xaxagáylhp” is more commonly applied, in Northern and Similkameen Okanagan, to devil’s club (ST; HR).

According to ST, the branches of swamp gooseberry were gathered at the same time tiger lily bulbs were dug. The branches were gathered, the spines singed off, and the sticks dried and stored. When they were needed, the sticks were chopped up and boiled to make a kind of tea which smells like peppermint and has a very pleasant taste. This was drunk as a medicine for colds and diarrhoea (ST; ML). Ray (1932:218) states that the leaves of “xaxagáylhp” were steeped in water as a medicine for children, or boiled for adults.

Currants, general (*Ribes* spp.)

red garden currants: tkweikwíls (ST; ML) or tkwekweikwíls (ST) kwil (‘red’) lit. ‘a bunch of little red ones (berries)’; or yarkn (LP) (see *R. cereum*)

black garden currants: tkw’ekw’ikw’ágys (ST); tkw’ikw’ágys (ML) (kw’agy ‘black’) lit. ‘many little black ones’ or ‘many black ones’; or yarkn (LP) (see *R. cereum*)

ST originally identified a specimen of wild black currant (*R. hudsonianum* Richards.) as “nt’it’meleps” (see wild gooseberry), but later stated that the plant called “nt’it’meleps” has thorns. She called sticky currant (*R. viscosissimum* Pursh) by the same name as black twinberry, namely ‘black bear’s fruit’.

Ray (1932:218) mentions stink currant or skunk currant (*Ribes bracteosum* Dougl.) and states that an infusion of this plant in water was given to a child with a cold. This information was provided by an informant who tentatively suggested the name “xaxagáylhp” for the plant. Ray (1932:218) states that this suggestion is “doubtless incorrect”, because he had a specimen of “xaxagáylhp” identified as wild mint (*Mentha arvensis* L., syn. *Mentha canadensis*), although Ray’s identification, itself, is probably mistaken. In view of the application of the term by present-day informants to *Ribes lacustre*, it appears that Ray’s informant was correct and may actually have meant *R. lacustre*.

Hydrangea Family (Hydrangeaceae)

Mock-orange (*Philadelphus lewisii* Pursh)

wex-wáxi7lhp (ST; ML; LP; NF; Elmendorf 1935-36; Lerman 1952-54; Teit 1930:294; Gabriel 1954:25; Ray 1932:121)

LP and others refer to this bush in English as “dogwood”. In the old days, people used to say that when this bush was blooming the groundhogs (marmots) were fat (ML). The wood is strong and hard; the branches were used to make harpoon shafts, bows and arrows, arrow tips for arrows made from the stems of rye grass, digging sticks, pipestems, cradle hoops, snowshoes, and clubs (ML; Lerman 1952-54; Ray 1932:87, 121), as well as for breast-plate armour (WA). Elmendorf (1935-36) records that, for arrows, the two-year-old growth was gathered in winter. The sticks were bruised around the base with a stone knife and broken off square. The arrows were then fixed with three feathers glued on with pine pitch and lashed with sinew. The largest, oldest bushes were selected in making bows. The skin of a bull snake was slipped over the entire bow while the wood was still green and allowed to dry on it.

The leaves, when put in a basket and rubbed with water, lather into a froth. The leaves were then discarded and the froth used for washing the hands and for shampooing the hair (HR; NF; Elmendorf 1935-36; Lerman 1952-54). Some part of the plant (probably the branches) was boiled to make a tea that was drunk as a physic in the morning and evening (HR).

The inundated area on both sides of the former mouth of Dick Creek, which empties into the Sanpoil River, was called “wex-wáxi7lhp” (‘mock-orange’) because of the abundance of these bushes growing there (Bouchard and Kennedy 1979). This same name is also applied to an area immediately west of Highway 97, about 1.6 kilometres (one mile) north of Oliver (ST; Lerman 1952-54).

Waterleaf Family (Hydrophyllaceae)

Narrow-leafed Phacelia [*Phacelia linearis* (Pursh) Holz.]

sxwixwáyt (ST) ‘slivers’ (cf. *Lithospermum ruderales*)

The name refers to the small prickly hairs on the leaves and stem. ST was told as a child not to touch this plant or she would get sores from the hairs. Another species, *P. hastata* Dougl. ex Lehm., had no Okanagan-Colville name, as far as ST and ML could remember.

Waterleaf (*Hydrophyllum capitatum* Dougl. ex Benth.)

Teit (1930:238) lists the names “stlenqai’n” and “tlaka’n”, referring to the edible roots, but these terms are not recognized by ML, LP, CP or NF. The roots were eaten by the Thompson and Shuswap (Turner 1978:168). Teit (1930:238) implies that they do not grow in Okanagan-Colville country but that they were imported, although they are found in some locations within this territory.

Mint Family (Lamiaceae or Labiatae)

Giant Hyssop [*Agastache urticifolia* (Benth.) Kuntze]

ski7sílhp (LP) lit. ‘dream plant’; or wupwupkín (ML) lit. ‘furry head’

The strong-smelling leaves were placed in a baby’s blankets to help rid the child of a fever. Adults could drink an infusion of the leaves as a cure for a cold (LP).

Bugleweed (*Lycopus uniflorus* Michx.)

xínxen (Teit 1930:238; ML; Spier 1938:30); or xEnasta’tkwa (Spier 1938:28—his transcription)

ML says that “xínxen” is from the Coeur d’Alene language, and refers to a kind of “bulb” with a peppery taste which was obtained from them. It was identified by Teit (1930:238) and Spier (1938:30). The fleshy, white, radish-like roots were eaten by the Thompson and Shuswap (Turner 1978:170).

The Southern Okanagan obtained “xEnasta’tkwa” in August from around certain springs, such as Elliot Spring near Brewster Flat and Dan Canyon Spring near the Columbia River between Pateros and Brewster. The roots were eaten raw or were preserved a few days by keeping them in a wet tule sack; they were not dried (Spier 1938:28).

Canada Mint (*Mentha arvensis* L., syn. *Mentha canadensis* L.)

teḡwa7tígwa7 (HR; ST; ML; Lerman 1952-54; Spier 1938:166; Gabriel 1954:29; Ray 1932:104) (Ray translates this term as ‘rattler plant’)

The upper stems were broken off and, with the leaves still attached, were boiled in water to make a tea with a pleasant peppermint flavour (HR; Ray 1932:104; Lerman 1952-54). Some Sanpoil people still drink this tea (NF). This tea was also taken as a medicine for colds, fevers, pains, swellings, and colic in children (HR; Gabriel 1954:29; Ray 1932:218). It was also administered to relieve “summer complaint”, symptomized by headache and bleeding nose (probably sunstroke) (Spier 1938:166) (see also swamp gooseberry and currants).

“Coyote Mint” (*Monardella odoratissima* Benth.)

ap’kenúsa7stn (ML; Ray 1932:105, 218) lit. ‘instrument for wiping hunting or fishing tools’; or nxaxaglníwt (LP) (xaxágt ‘menthol smell’) lit. ‘menthol smell on sides’

This is a grey plant which grows in bunches and is common in Colville territory (ML; LP). The leaves and stems were boiled for a few minutes, or steeped in hot water (LP), to make a tea which was drunk either hot or cold, as a beverage or to treat severe cases of the common cold in children or

adults (Ray 1932:218; LP). Originally Coyote used this plant to wipe spears, harpoons, animal snares, arrows, fishing hooks, and fishing lines, to cleanse them and remove his scent from them; modern Indian men use it for the same purpose (ML). It is especially good for purifying weapons which had killed game subsequently shared as food with a menstruating woman. After they were treated in this way they became as efficient as ever (Ray 1932:135).

Catnip (*Nepeta cataria* L.)

tkwikwágykst (ML only) (kwagy 'blue/green') lit. 'blue/green leaves'; or sewá'íps senekstíya (ML only) lit. 'skunk's scent-bag'

This is an introduced species. The top part of the plant was steeped in hot water and the infusion drunk for colds. In fall the leaves were gathered and dried for use during the winter (ML). The second name was provided by ML later. He said the skunk eats this and it is one of the things that gives the skunk its bad smell.

Salvia, or Purple Sage [*Salvia dorrii* (Kell.) Abrams var. *carnosa* (Dougl.) Cronq., syn. *Ramona incana* (Benth.) Dougl.]

sneknektkín (LP; NF; CP; Lerman 1952-54; Ray 1932:217) lit. 'soft on top' (?); or yuyu-gwálhkw (ML only) lit. 'strong odour'

Ray (1932:130) also applies what appears to be this same term, "sneknektkín", to a fragrant smelling "grass" growing on the river bank; he states this "grass" was used to provide a fragrant odour in a baby's cradle board. ML used the name "sneknektkín" to refer to a fine-bladed "grass", 15 to 20 centimetres (five to eight inches) high, which used to grow in bunches along the Columbia River.

Salvia leaves were boiled or steeped in water to make a medicine for any illness of a general nature, particularly colds (Ray 1932:217; ML; LP). Lerman (1952-54) states that a decoction of the roots was drunk as a medicine for smallpox.

Water-lily Family (Nymphaeaceae)

Yellow Pond-lily (*Nuphar polysepalum* Engelm.) and White Water-lily (*Nymphaea odorata* Ait.)
láklek (ST; NF)

The yellow pond-lily is native to Okanagan-Colville territory. The white water-lily has been introduced and is locally common in some lakes, such as Vaseaux Lake between Penticton and Oliver. Spier (1938:27) noted that the Southern Okanagan used "especially the large leaves of water lilies" to place under the roots of edible valerian being cooked in underground pits. However, he may have actually been referring to skunk cabbage leaves (see page 35).

The roots of both species are considered poisonous, but the stems were pulled out and a piece placed directly on the tooth to relieve a toothache (ST). NF recalls her mother keeping dried roots of the yellow pond-lily around the house, but doesn't remember what they were used for.

Evening Primrose Family (Onagraceae)

Fireweed (*Epilobium angustifolium* L.)

lhelhkenílh (ST; ML; NF) (lhkilhp 'any saskatoon bush') lit. 'like saskatoon bush' (?); or p'ekwp'kwaniílh (LA; WA; ML) (p'ukw 'no growth') (see also *Artemisia ludoviciana*)

ML suggested the first name was given because the young shoots of fireweed look like those of saskatoons, but ST felt that there was no resemblance between the two plants. Fireweed was a good food for horses and deer (ML). ML called spreading dogbane by a name similar to the first one listed here for fireweed. The pith inside the shoots was apparently not eaten by the Okanagan-Colville, as it was by other Interior Salish groups (cf. Turner 1978:170).

Small Willowherb (*Epilobium miniatum* Lindl. ex Hook.)

nkwekwí7kwi7kágn (ML only) (kwagy 'blue/green') lit. 'little blue/green tops'

ML collected two samples of the plant he called by this name. The first was *E. miniatum*, the second purple lettuce [*Lactuca pulchella* (Pursh) DC.]. He stated that the plant was used as a medicine for diarrhoea in children (see purple lettuce).

Tall Willowherb (*Epilobium paniculatum* Nutt. ex T. & G.)

tsur (LA only) 'syrup-like, oozy'

This plant was used as a hair conditioner to eliminate dandruff, to make the hair grow long, and keep it down flat and easy to manage. The tops were steeped in cold water until they formed a syrupy substance. This was then applied to the hair (LA).

Plantain Family (Plantaginaceae)

Broad-leafed Plantain (*Plantago major* L.)

skewark'xníkst (ST; ML; CP) (sewárák'xn 'frog') lit. 'frog leaves'

The leaves were mashed and put on sores to kill germs (ML; CP; Watkins 1970:32).

Sagebrush Plantain (*Plantago patagonica* Jacq.)

pepágpáǵ (ST only) (pag 'grey') lit. 'a bunch of little grey ones'; or kw'ets'kwets'wi7húpa7s (LA only) lit. 'chipmunk's little tail' (cf. yarrow); or tkw'ekw'xwn7úps lit. 'mouse's tail' (ML only)

The first name is a general one; it was applied to several small, hairy-leafed plants, including *Erigeron linearis*. The general term, "spellúla7xw" ('ground-growth') was also used for this plant (ST). The leaves were mashed and used as a poultice for open sores, just like broad-leafed plantain (LA).

Phlox Family (Polemoniaceae)

Salmon-coloured Collomia (*Collomia grandiflora* Dougl. ex Lindl.)

xexa7xa7la7xwúpa7s (ML only) (xa7xa7la7xwúps 'scarlet gilia') lit. 'little scarlet gilia (rattlesnake's tail)'

This flower resembles scarlet gilia (see next) except that it is smaller, with yellowish flowers. It was used in the same way (ML).

Scarlet Gilia [*Gilia aggregata* (Pursh) Spreng.]

xa7xa7la7xwúps (ST; ML; Lerman 1952-54; Spier 1938:166; Teit 1930:294; Watkins 1970:31; Gabriel 1954:29) (xa7xa7ula7xw 'rattlesnake'; -ups 'tail end') lit. 'rattlesnake's tail'

The first growth of this striking scarlet-flowered plant is said to resemble a rattlesnake's rattle (ML; LPR). The leaves and stalks were steeped in hot water and the infusion drunk for constipation and to "clean out your system". Adults drank it straight but, for children, it was mixed with yarrow to make it weaker (ST; HR; Watkins 1970:31; Spier 1938:166). The leaves were collected in June and dried for use any time (HR). The roots were steeped and the infusion drunk as a laxative and also for high fever (ML). A decoction of the leaves was used as an eyewash and also as a head and face wash by adolescent girls to improve their skin and hair (Teit 1930:294).

Phlox (*Phlox longifolia* Nutt.)

skts'unús (ST; ML) (sts'uwin 'early sockeye salmon'; -us 'face/eye') lit. 'early sockeye salmon's eye'; or ts'ets'emíxwiya7 (ML; LA) lit. 'narrowing to a point'

This flower doesn't seem to bloom every year; sometimes it blooms only every second year (ST). The whole plant was steeped in hot water and the infusion drunk as a tea for "anaemic" children (LA). The two names were given on two occasions.

Knotweed Family (Polygonaceae)

Wild Buckwheat, or Sulphur Flower (*Eriogonum heracleoides* Nutt., *E. niveum* Dougl. ex Benth., *E. compositum* Dougl. ex Benth., and other *Eriogonum* species)

a7p'enwíxwtñ (ST; ML; Lerman 1952-54) (up' 'hook'; -wixw 'each other'; -tñ causative) lit. 'hooking each other'

E. compositum: tsαk'tsαk'wá-'læk (Ray 1932:218—Ray translates this as 'red-red wood'; this term is not recognized by ML, LP, NF or CP)



Fig. 71. Wild buckwheat (*Eriogonum heracleoides*) and children's "wishbone" game—Robert D. Turner

Ray (1932:218) gives the term "siyáyts'kn" for *E. heracleoides*, but NF and CP use this word to refer to stoneseed, or gromwell (*Lithospermum ruderales*).

Children of the Okanagan-Colville played a game with the stems of these plants. They broke off the main stem, leaving one side-branch attached to make a "hook". Each child took one of these. They hooked them together and pulled. The first one to break his or her stick lost the game (ST; ML). The root of *E. compositum* was boiled to make a tea for diarrhoea (Ray 1932:218). The roots and stems were boiled in water which was used to wash infected cuts and drunk for colds (ML; Lerman 1952-54), blood poisoning, tuberculosis, cancer, and all types of sickness (Lerman 1952-54). The leaves were mashed and applied as a direct poultice for cuts, or steeped in hot water and used to wash cuts and sores (NF).

Water Knotweed (*Polygonum amphibium* L.)

nkwxkw'xwptkw (ML only) (kw'exwáp 'snake moving along'; -itkw pertaining to 'water') lit. 'snake moving along in the water'

The roots of this aquatic plant were pulled up, dried, pounded, and steeped in hot or cold water to make a drink for chest colds. Alternately, for the same ailment, they could simply be eaten raw, a little bit at a time (ML).

Garden Rhubarb (*Rheum hybridum* Murr.)

xwuxwtíhp (ST; ML)

This name is the same as that of cow parsnip, which is often called "Indian rhubarb" by the Okanagan-Colville and other Indian groups. Rhubarb was introduced by Europeans and has been cultivated by many Okanagan-Colville people over the last century.

Sourgrass, or Sheep Sorrel (*Rumex acetosella* L.)

ktxtxíkst (ML) lit. 'bitter-tasting leaves'; kts'eíts'eííkst (ML) 'sour-tasting leaves'; or kts'eíts'eííka7st (AL) 'sour-tasting little leaves'

This plant was introduced from Europe. The leaves were eaten raw right from the plant. They are especially good in early summer (ML).

Purslane Family (Portulacaceae)

Spring Beauty, or "Indian Potato" (*Claytonia lanceolata* Pursh)

skweñkwíñem (ST; ML; Lerman 1952-54; Elmendorf 1935-36; Spier 1938:30; Ray 1932:100; Gabriel 1954:25; Teit 1930:238)

big corms: upenekstúps (ST; ML) lit. 'ten-tails'

Apparently the term "skweñkwíñem" was occasionally also used to refer to garden potatoes (*Solanum tuberosum*) (ML). "Skweñkwíñem" grows at higher elevations, with "Indian carrot" (*Perideridia gairdneri*) and bitter-root, but only in fairly damp areas. The round, fleshy corms are ready to be dug just as bitter-root is finished, around the end of May, or in Lakes (Elmendorf 1935-36) and Sanpoil-Nespelem (Ray 1932:100) territory, in April and May. This is just after they have bloomed, when the leaves "start to turn a little different." The corms are quite shallow, and are dug with a digging stick. The more stems a plant has, the larger its root will be; one with two or three stems might have a corm 2.5 centimetres (an inch) across; one with 10 stems might have a five-centimetre (two-inch) corm, while one with 15 stems might yield a 7.5-centimetre (three-inch) corm (ST). Indian potatoes were generally eaten when they were dug, but sometimes they were stored for a short time by burying them in a hole lined with pine needles and cottonwood bark to prevent them from freezing and to keep out rodents (ST; Lerman 1952-54). They were usually not eaten raw, except occasionally by the Lakes people (Elmendorf 1935-36) and by the Sanpoil-Nespelem (Ray 1932:100). More often they were steamed like bitter-roots or boiled in a little water, as one would cook potatoes. They were occasionally dried after being cooked (Lerman 1952-54; Gabriel 1954:25), but they did not keep well (Elmendorf 1935-36). They are crisp and pleasant-tasting and are still eaten today by some Northern Okanagan people (ST). In the old days they used to have a first-roots ceremony for these corms, around the first of June (Lerman 1952-54).

Bitter-root, or Sand Rose (*Lewisia rediviva* Pursh)

sp'itl'm (ST; ML; LP; NF; CP; Lerman 1952-54; Spier 1938:30; Teit 1930:238; Elmendorf 1935-36; Ray 1932:100; Dumbeck 1945; Watkins 1970:32; Gabriel 1954:25) (p'itl' 'peel off the outer covering of a root') (see also *L. pygmaea*)

secondary roots (which drop off after "sp'itl'm" is dried): sk'ek'músa7xn (ST; ML) lit. 'a bunch of lower ends'

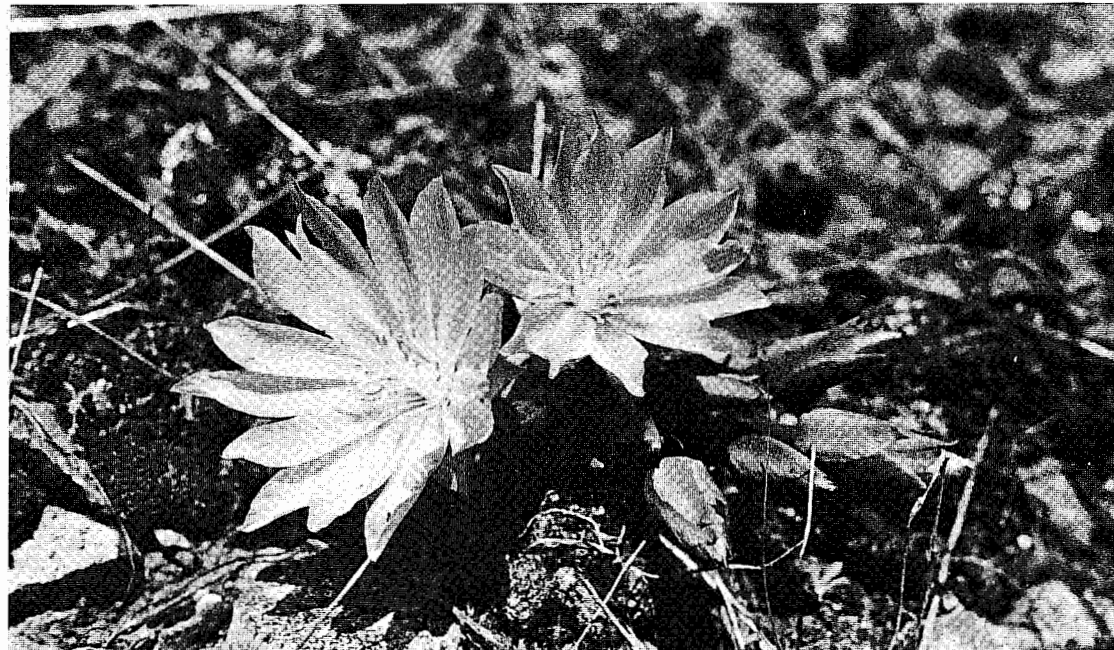


Fig. 72. Bitter-root (*Lewisia rediviva*)—Robert D. Turner

The roots of this important food plant were gathered in April and May, just before the plants were in full bloom. April is named "sp'itl'mtn" after this plant in Northern Okanagan (Lerman 1952-54). Certain areas, notably at higher elevations, produced larger, better-tasting roots than others (ST). Spier (1938:26) states that the best plants grow in moist ground, not too sandy, usually among rocks. The roots on some areas of the Penticton Reserve are quite bitter, and were not eaten (ST). The West Bench area of low rolling hills near the south end of Okanagan Lake, where Highway 97 enters Penticton, is called "xesúla7xw" ('good land') and has been a popular place for digging bitter-root in recent times. The roots here are more bitter than at the major traditional area for digging bitter-roots, a region of approximately 780 metres (2,500 feet) elevation, northwest of Penticton, towards Summerland along the Shingle Creek Road. This rolling land is called "klhk'xwiws" ('low basin area'), and is known locally as "Pierre Flats". "Roddy Flats", immediately adjacent, was also frequented (ST; LPR). It was at "klhk'xwiws" that the first-roots and the first-fruits and first-game ceremonies were held each year (ST). When the buds of the bitter-root started to bend over, four of the "cleanest" women were chosen to dig the first roots. Four young men were picked to go hunting and fishing, and when enough food had been harvested, a large feast was held "to thank the bitter-root for coming" (ST).

Another major digging area for bitter-root, apparently used traditionally by the now-extinct Similkameen Athapaskan people, as well as by the Okanagan from Tonasket, Oroville and Omak, and even by the Thompson people, is about 13 kilometres (eight miles) south of the west end of Spectacle Lake, Washington (HR). This is a high, flat bench several square miles in area, called "k'inútn" (said to be an original Similkameen Athapaskan word whose meaning is not known) (HR). This area produces some extremely large roots, even today.

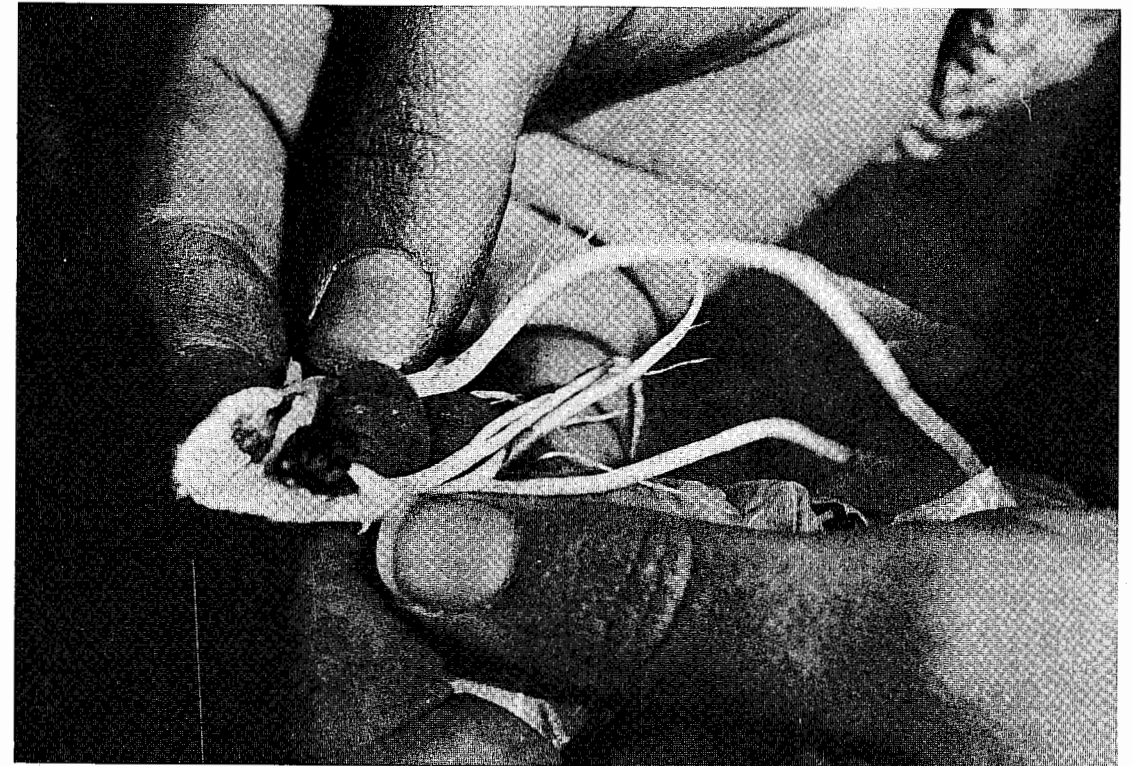


Fig. 73. Bitter-root, split open to show the "heart" which is removed immediately after harvesting—Nancy J. Turner



Fig. 74. Bitter-roots, dried and peeled—Nancy J. Turner

Some areas where the Sanpoil people obtained bitter-root were as follows: Buffalo Lake flats ("silxwalhngánm") and Owhi Lake flats ("tkakagáykn"), both near Nespelem (the roots at both of these places were rather bitter); the upper area of Manila Creek; the vicinity of "Seventeen Mile" in the Sanpoil Valley; and throughout the "Big Bend" area south of the Columbia River at such places as Badger Mountain ("kw'exwtsín") near Waterville, Wilbur ("nlxwapm"), and Creston ("tkwekweilxtín") (NF).

One area where the Colville people obtained bitter-root was a place called "a7klh-sp'itl'm" ('small area of bitter-root'), northwest of Inchelium, at the east end of Lynx Creek Mountain (AL; LP).

The Southern Okanagan dug these roots in the following places: the hills about 12 kilometres (seven miles) north of Pateros; the hills either side of the Methow River from Twisp to Winthrop; all around Duley Lake, about 19 kilometres (12 miles) east of Monse; on the east side of the Columbia in the hills east of Waterville; at the south end of Lake Omak; in meadows south of Kartar Creek; and near the site of the Kartar post office (Spier 1938:26).

Bitter-root is still dug by some older Okanagan-Colville people. The roots are pried up with a digging stick made from the wood of the mock-orange (or nowadays they are made from iron). The tops are broken off and the outer covering is stripped off. When the root is freshly dug, it is called "iaíakwa7", before the skin is peeled off; afterwards it is called "sp'itl'm". The term "p'itl'", from which "sp'itl'm" is derived, means 'take the pants off' as well as 'peel off a root's outer covering'. The top part of the peeled root is split open and a small orange-red structure called the "heart" (apparently the young, developing plant of the next year's growth) is removed. Not every root has a "heart", but when present it will make the root very bitter if it is not extracted (ST; ML). The peeled roots are washed and laid on mats or grass for two or three days to dry (ST). According to Spier (1938:26), the Southern Okanagan picked the roots into twined Indian hemp baskets carried on the waist, then packed them in large, tule baskets. ML points out that bitter-roots are generally stored in sacks — according to him they are the only roots which cannot be stored in the ground, although Spier (1938:26) reports that after they were dried they were sometimes stored in pits lined with pine needles. Care was taken to pack them tightly to prevent air from circulating, because this would make them hard and dry (Spier 1938:26).

Bitter-roots, fresh or dried, are usually cooked by steaming or boiling (ST; ML) or by pit-cooking for about half an hour (Spier 1938:26). In the past, they were steamed in a birch-bark container using hot rocks. They are seldom eaten dried, because they swell up in the stomach and cause discomfort (Spier 1938:26; ST; ML). They are sometimes cooked with other foods such as "nga7tsáks" (*Lomatium geyeri*). Dried bitter-roots are mixed with dried gooseberries or, half-and-half, with dried saskatoons (Spier 1938:26; ST). If stored alone for long they became very bitter. It took a person with "good power" to mix the bitter-roots and berries effectively; sometimes men did this. In all cases, they were cooked separately but mixed with other food when served because they were so bitter. They were considered "good for one, like pepper and mustard" (Spier 1938:26).

Bitter-root was formerly an important article of trade. It was traded in large quantities to the Thompson people in exchange for dried salmon (ST). The Lakes people obtained it from the Colville in return for dried salmon, dried venison, and berry cakes (Elmendorf 1935-36). According to some people's conception of Okanagan-Colville cosmology, bitter-root was known as the "king" of all the roots (ST; ML). The "heart" was used in some type of witchcraft, or "plhax" (ML). As a medicine, the raw root is applied directly to external sores. HR was told that eating a large quantity of raw bitter-root would cure a rash caused by poison ivy. Eating either dried or fresh bitter-root is supposed to help people with diabetes (NF). Lerman (1952-54) reports that a certain woman had four children and did not want any more. She ate bitter-root in the spring and did not have any more babies.

Primrose Family (Primulaceae)

Shooting Star, or Peacock [*Dodecatheon pauciflorum* (Durand) Greene]

kwkwúykwi stl'ekw'páksts (ST; ML) [kwkwúykwi 'curlew'; stl'ekw'pákst; beak (tl'akw'p 'pierce into')] lit. 'curlew's beak'; or skwúykwi spetkwáksts (AL) (also means 'curlew's beak')

The flowers were mashed and smeared on arrows to colour them pink (WA). The roots were steeped in hot water and the infusion used as an eye wash for sore eyes (ML).

Buttercup Family (Ranunculaceae)

Monkshood (*Aconitum columbianum* Nutt.)

nkwikwágykn (ML only) lit. 'blue/green top'

This term appears to be a general one for several blue-flowered plants (see also western *mertensia*). This particular species was used for "plhax", or "witchcraft" (ML). It is a highly poisonous plant.

Anemone, or Windflower (*Anemone multifida* Poir.)

(s)klhelheklhkiwa7s (ST; ML) [lhelhák 'clustered (vegetation)'; -íwa7s 'middle (diminutive)'] lit. 'clustered around the (little) middle'

This plant grows in clumps in damp places near creeks. It was not used for anything (ST). It contains a skin irritant and was used as a counter-irritant poultice for cuts and bruises by other Interior Indian groups (Turner 1978:235).

Red Columbine (*Aquilegia formosa* Fisch.)

nkwelkwíl-lhts'a (ST) (kwil 'red')

This flower was used as a good luck charm (LA).

Blue Clematis [*Clematis columbiana* (Nutt.) T. & G.]

k'ek'ts'a7shína7 (ST; ML; WA; LA; Lerman 1952-54) (k'ats' 'tangled'); tk'ets'k'ets'pínas i7 snína (ML only) lit. 'owl's braids'; or ntkw'ulxmnip (ML), (tk'iwlx 'to climb') lit. 'climb after something'

The leaves alone, or the stems with the leaves attached, were steeped in hot water to make a hair-washing solution, said to prevent grey hair. For sweaty feet, the leaves were pounded, dampened slightly, and applied directly to the feet (ML). ML used the name "tk'ets'k'ets'pínas i7 snína" ('owl's braids') for blue clematis at first, but later applied it to orange honey-suckle — according to ML, this term is derived from a legend about the origin of clematis (see white clematis).

White Clematis (*Clematis ligusticifolia* Nutt.)

k'ets'asnína (ST; ML; WA; LA; Spier 1938:63; Lerman 1952-54; Ray 1932:45) (k'ats' 'tangled') (blue clematis is the diminutive form of this name); or k'ets'k'ets'pínas snína (ML only) lit. 'owl's braids' (see blue clematis)

ML smoked the stems as a child. The bark was stripped off and used in weaving bags, table mats, garments and other items (Spier 1938:63; Ray 1932:45). A bag made from clematis could carry about 40 to 50 kilograms (75 to 100 pounds) of goods. The Northern Okanagan traded for bundles of the bark (Lerman 1952-54). The leaves and branches were mashed, boiled, and the liquid rubbed into the scalp as a shampoo (ML; NF). When used every day for a month, it kills the



Fig. 75. Sagebrush buttercup (*Ranunculus glaberrimus*)—Nancy J. Turner

“germs” in the hair roots. It is especially good for young people (ST). Sometimes the clematis was boiled with yarrow and Douglas-fir “witch’s broom” to make this hair wash (ST). ML warns that it is a strong medicine and must be used carefully. The leaves were rubbed together in water to form a lather, which was used as a general soap and for skin sores and boils on men or animals (Ray 1932:220). The stalk and roots can be used to make a women’s contraceptive, but extreme caution must be used (HR).

According to ML, clematis vines (white and blue) were, in mythical times, originally the braids of a young maiden owl, whose mother was a people-killing owl. Coyote came along and commanded the owl’s braids to be called “k’ets’asnina” and changed them to clematis vines, saying, “You will be found in the underbrush” (ML).

Larkspur (*Delphinium nuttallianum* Pritz. ex Walpers)

xágxag stl’ekw’páksts (ST; ML) lit. ‘crow’s beak’ (cf. *Dodecatheon pauciflorum*); xágxag spetkwáksts (HR) ‘crow’s beak’ (variant); tkwiya7sáǵstn (ML) lit. ‘causing blue/green colouring’ (see also blue penstemon)

These flowers, like those of blue penstemon, were used to make a blue stain for colouring arrows and other items (ML; Teit 1930:218).

Sagebrush Buttercup (*Ranunculus glaberrimus* Hook.)

skeńírmñ (ST; HR; NF; AL; Lerman 1952-54; Spier 1938:180; Ray 1932:27; Elmendorf 1935-36) (see also “ntsektkwús” in the section on Unidentified Plants)

According to Lerman (1952-54), Ray (1932:27), and ML, the time around late February and early March is called “skeńírmñ” after buttercup. Elmendorf (1935-36) states that it blooms all winter.

The whole plant was used as a medicine for sore joints or pains of any kind. A handful of plants was mashed, dampened with water, and applied as a poultice to the affected area for about half an hour. The poultice was often tied on with buckskin. This remedy is very painful. The leaves cause blistering and draw the “poison” out (HR; Elmendorf 1935-36) [this plant, as well as many others in the buttercup family, contains a skin-irritating chemical (cf. Turner 1978:235)]. Bear grease was applied as an antidote for the blistering. Usually one application was sufficient to effect a cure (HR; Elmendorf 1935-36). NF recalls being told as a child not to play with the flowers of “skeńírmñ” or she would get skin sores. AL knows of this plant’s use in modern times as a poison for coyotes; the whole plant was dried or mashed up fresh and placed on a piece of meat used as bait.

Cascara Family (Rhamnaceae)

Buckbrush (*Ceanothus sanguineus* Pursh)

kw’lít’i7lhp (ML; LA; NF; Ray 1932:217)

Ray (1932:217) also gives the term “gwigwnlhp” (see *C. velutinus*) to refer to this species. The wood can be used as fuel and for smoking deer meat if other woods are not available. The branches are an important food for deer, especially the buds in spring (ML). The “sapwood” beneath the bark was dried, pulverized, and rubbed on sores or wounds, over an application of grease or oil (Ray 1932:217). The bark could be dried, powdered and applied directly as a poultice for burns (NF).

A hilly area just north of Barnaby Creek is called “nkwlít’i7lhp” (‘having buckbrush’) after this bush. It grows there in profusion (ML).

Snowbrush (*Ceanothus velutinus* Dougl. ex Hook.)

ganlhp (ST; Lerman 1952-54); gwawnlhp (ML; LA); or gwigwnlhp (NF)

Ray (1932:217) gives the form "gwigwnlhp" as an alternate term for buckbrush (see *C. sanguineus*). The branch tops, with leaves attached, were boiled to make a hair wash for curing dandruff and as a cleansing solution for use in the sweathouse (ML; WA). A weak solution was used to bathe babies to prevent diaper rash (LA) and a slightly stronger solution could be used by adults to "condition" the skin (WA). The branches were steeped in hot water and the infusion used to wash sores, but care had to be taken not to make it too strong. It was also used for eczema (ML; HR). The leaves were dried in the oven, mashed into a fine powder, and applied directly to sores or mixed with pitch and used as a salve. It was also used as a kind of "baby powder" (HR). A tea made with the leaves was taken internally to help heal broken bones (ML), and as a blood purifier (Lerman 1952-54). Deer like to eat this bush (ML; Lerman 1952-54).

Cascara (*Rhamnus purshiana* DC.)

kteptsálekʷ (ML; NF) (tip 'dark colour, between black and brown') lit. 'dark-coloured wood'; stepetsálu (Ray 1932:221; Spier 1938:166)

This tree grows at middle elevations in the mountains. The bark was peeled off and steeped in water to make a "tea" used as a mild laxative (ST; ML; NF; Spier 1938:166), or the bark could be boiled and the solution used as a cathartic (Ray 1932:221). It was also taken for rheumatism and arthritis, and as a blood purifier. The pieces of bark used were about 10 centimetres (four inches) long and 2.5 centimetres (one inch) wide. One should always cut the bark downwards or "it will stop in your stomach" (ML). The tea should be drunk in the morning "long before you eat" (ST). The bark is best when gathered in late October and early November because the sap has descended down the trunk (ML). ML says this is one of the "kings" of medicine.

Rose Family (Rosaceae)

Saskatoon Berry, or Serviceberry (*Amelanchier alnifolia* Nutt.)

berries, general: siya7 (ST; HR; Lerman 1952-54; Dumbeck 1945; Gabriel 1954:26, 28; Spier 1938:29; Teit 1930:238)

bush, general: slhkilhp (ST; HR)

variety growing in rocky places: siyiya (berries) and si7ilhp (bush) (NF; AL; Elmendorf 1935-36; Ray 1932:101)

"regular" variety: slhak (berries) and slhkilhp (bush) (NF; AL; Elmendorf 1935-36)

"poor" variety: sk'ek'sálha7k (ST; HR; LPR; Teit 1930:238) (k'ast 'bad') lit. 'bad little fruit'

"short" variety: t'et'k'ilhmeix (ST; ML; LPR) lit. 'short bush'

"basin" variety: lexwús (ST; ML; LPR) lit. 'face of basin'

"wide-leaved" variety: lhek'alhpákst (ST; ML; LPR) (lhak't 'wide'; -akst 'leaves') lit. 'wide-leaved plant'

"tall" variety: wuxenilhemix (ST; ML; LPR) (wisxn 'long, tall') lit. 'tall bush'

"mountain" variety: skw'lkw'lkín (ST; ML; LPR) (skw'lkw'alt 'high mountain'; -kin 'head/top') lit. 'high mountain-top'

"chipmunk" variety: skw'ets'kw'ets'wi7háha7k (ST; ML; LPR) (kw'ekw'ts'wiya7 'chipmunk') lit. 'chipmunk's little fruit'

"bursting" variety: t'et'ikwt'ekwt (ML; WA; LA) (t'ukw 'burst') lit. 'always bursting'; or kt'et'ikws (ML) (t'ukw 'burst'; -us 'face/eye') lit. 'burst eye'

straight new suckers of saskatoon: sxwetl'xwitl'a7st (ML; WA) [xwitl' 'break (plural)']; or spep'agts'álakw (AL)

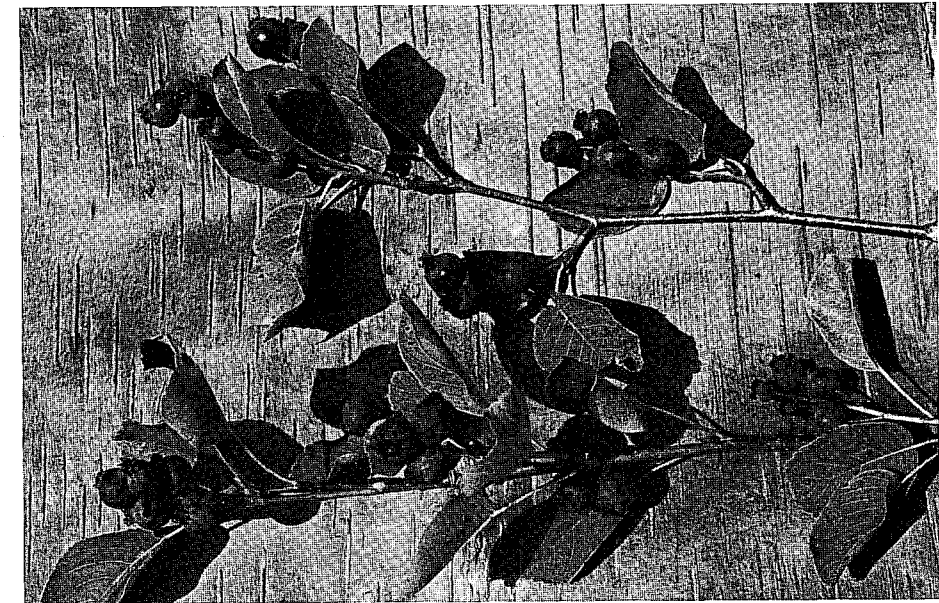


Fig. 76. Saskatoon berry, or serviceberry (*Amelanchier alnifolia*)—Robert D. Turner



Fig. 77. Selina Timoyakin picking Saskatoon berries, or serviceberries—Eric Sismey

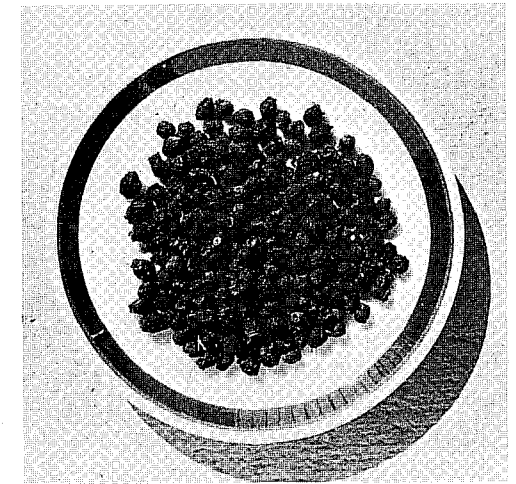


Fig. 78. Dried Saskatoon berries, or serviceberries; prepared by Jeanette Aleck—D. I. D. Kennedy

Saskatoon berries (called "serviceberries", or "sarviceberries" in the United States) were, and are, very important to the Okanagan-Colville Indian people. They can be picked throughout July, and in some places, even into August and September. According to Lerman (1952-54), the approximate month of June is called "síya7tn" in Northern Okanagan because that is when saskatoon berries start to ripen.

At least eight varieties of saskatoons are recognized by the Northern and Similkameen Okanagan, but it appears the Lakes, Colville and Sanpoil recognize only two. Botanists delineate three varieties of saskatoons within Okanagan-Colville territory. Those recognized by the Okanagan-Colville are distinguished on the basis of habitat, growth form, bark, leaves, ripening time, and appearance and taste of the berries. Some old-timers, such as WA's late mother, were able to distinguish all the varieties on the basis of the bark alone, but nowadays only a very few old people know all of them.

In Northern, Similkameen, and Southern Okanagan territory, the term "síya7" refers to any saskatoon berry. In Sanpoil, Lakes, and Colville, however, the reduplicated form "siyíya" refers uniquely to a variety of saskatoon growing in dry, rocky places and having berries that are sweeter and drier than the "regular" ones, called "slhak". AL points out that "siyíya" is the only variety whose berries fall off the bush almost immediately after they become ripe. The term "si7ilhp", which is not used by the Northern and Similkameen Okanagan, refers uniquely to the bush on which the berries called "siyíya" (by the Sanpoil, Lakes, and Colville) are found. The "regular" variety known to the Sanpoil, Lakes, and Colville is called "slhak" and is characterized by berries that are bigger and leaves that are darker than "siyíya". The term "slhkilhp", as used by the Sanpoil, Lakes, and Colville, refers uniquely to the bush on which the "slhak" berries are found, but "slhkilhp" for the Northern and Similkameen Okanagan is the general term for any saskatoon bush.

The eight varieties delineated by the Northern and Similkameen Okanagan are as follows:

The first, the "poor" type, grows in dry areas and has bushes about two metres (six feet) high. The berries are quite small and were not highly regarded. They were picked for eating fresh but were not dried or stored. There is a place southwest of Keremeos where they used to pick them called "stint'in" (apparently a Similkameen Athapaskan term) (ST; HR; LPR). LPR used to go there with his mother and grandmother to get them.

The second, or "short" variety, has bushes about one metre (four feet) high and big, blue berries with whitish flesh. It is difficult to distinguish from other types except by eating the berries. It grows at Round Lake, north of Vernon (LPR).

The third, or "basin" variety, is apparently "the very best kind of saskatoon you can find" (ML). The bushes are about four to five metres (12 to 15 feet) tall and the berries are large and blue with cherry-coloured flesh. The seeds are small, and the berries do not harden when dried, but become like raisins. This type can be found around White Lake, southwest of Penticton (ML; LPR).

The fourth, "wide-leafed" variety, has larger leaves than other types and grows close to the water, near rivers, lakes, swamps, or springs. The bushes are about three metres (ten feet) tall, and the berries are rated as about "third best" for eating of all the varieties (ST; ML; LPR).

The fifth, "tall" variety, has bushes about 2.5 metres (eight feet) tall and is found on dry flats and sidehills. The berries are fairly small, but always abundant. They are good for drying because they stay soft. The plants are very common (ST; ML).

The sixth, or "mountain" variety, grows at high altitudes and is the latest ripening. The bushes are of moderate height and the berries are small but plentiful. It resembles the "poor" variety (LPR; ML).

The seventh, or "chipmunk" variety, has very low bushes, 60 centimetres (two feet) or less in height and medium-sized, reddish berries which are good for eating raw, cooking, or canning, but not for drying because they get hard and lose their flavour (ST). According to ML, in mythical times Chipmunk used to pick these berries for her grandmother, Rabbit.

The last, "bursting" variety, has big berries similar to "basin" saskatoons, but they are more watery, with red juice. They were eaten fresh, but not dried. They grow along with the "mountain" variety at high elevations and are the last to ripen, in September (ML; WA; LA).

According to Spier (1938:25), the berries were picked, by women, into coiled cedar-root baskets tied to the waist and packed in larger coiled baskets carried on the back by a tump line. To dry, the berries were spread on large, flat rocks or on tule mats or sacks laid on the ground or on long racks. They were taken in if it rained. They were never piled, but spread out only one layer deep. Drying took about a week, depending on the weather and the degree of ripeness of the fruit. When dry they were placed in Indian hemp bags for winter storage or in wooden or bark tubs for summer use (Spier 1938:25).

Saskatoons were commonly mixed with other foods. Spier (1938:25) notes that in the old days the fresh berries were boiled for about half an hour with bitter-root or salmon eggs. The dried fruits were usually mixed with bitter-root and boiled, often along with salmon, which would be served separately. A special delicacy was salmon eggs and dried saskatoons, boiled or eaten cold, but never mashed (Spier 1938:25). The berries were also mixed with black tree lichen, deer blood and meat, the bulbs of tiger lilies, and other types of berries such as mountain blueberries (ST; Elmendorf 1935-36).

The dried berries are very sweet, and in the old days they were used to sweeten "Indian ice-cream" made from soapberries (ST; Lerman 1952-54) and were mixed with bitter foods such as red-osier dogwood fruits (Spier 1938:25). Dried saskatoons were traded to the Thompson at Merritt for salmon (Lerman 1952-54). Today the fresh berries are eaten with sugar and are canned and frozen. They are often made into pies or puddings. A few old people still dry them.

The wood of saskatoon bushes is strong and straight-grained and was used to make such items as arrows, digging sticks, spears, and seed beaters (ML; Lerman 1952-54). The bark was removed and the wood heated before a fire to mould and harden it. It was rubbed smooth with horsetail (Lerman 1952-54), tough grass, or a handful of wood shavings from "serviceberry" (saskatoon) (Spier 1938:53). The young branches of saskatoon, like those of willow and other species, were twisted into a type of rope called "syílu7" (LP).

A tea, made by boiling saskatoon branches, was drunk for a cold or as a general tonic (WA). If a woman had too many children, she would burn saskatoon branches with the branches or buds of pine, boil the ashes, and drink this concoction every day for about a year after her last baby was born, or at least during her monthly periods for that time. This was said to prevent her from having any more children. This medicine is called "lhelhekílhkílh7p" after the saskatoon bush (ST). A temporary contraceptive was made by boiling the sticks with those of "red willow" and soapberry. This was taken for a while after childbirth to ensure that a woman's babies were spaced at least two years apart (Lerman 1952-54). A syrup made by boiling saskatoon berries with black tree lichen was given to babies after they were weaned (Gabriel 1954:28). The Northern Okanagan believed that mourners should not eat saskatoon berries or meat or they would get sick (Lerman 1952-54).

Red Hawthorn, or Red Thornberry (*Crataegus columbiana* Howell)

berries: xexáy (ST; ML; NF; LP; Lerman 1952-54; Spier 1938:29); or stemúk (NF; LP; Ray 1932:103; Elmendorf 1935-36)

bush: xexáyilhp (ST; ML; NF; LP; Spier 1938:192)

Apparently there are two varieties of berries of red hawthorn; although Sanpoil and Colville informants are unable to describe the distinguishing characteristics of these, they do acknowledge that the berries are "different", even though the bushes are the same. This distinction is also recognized by the Spokane, who apply the same two names to the berries (R. May, pers. comm.). A Spokane informant has stated that the difference between the two varieties can only be observed when the berries are ripe (Nancy Flett, pers. comm.).

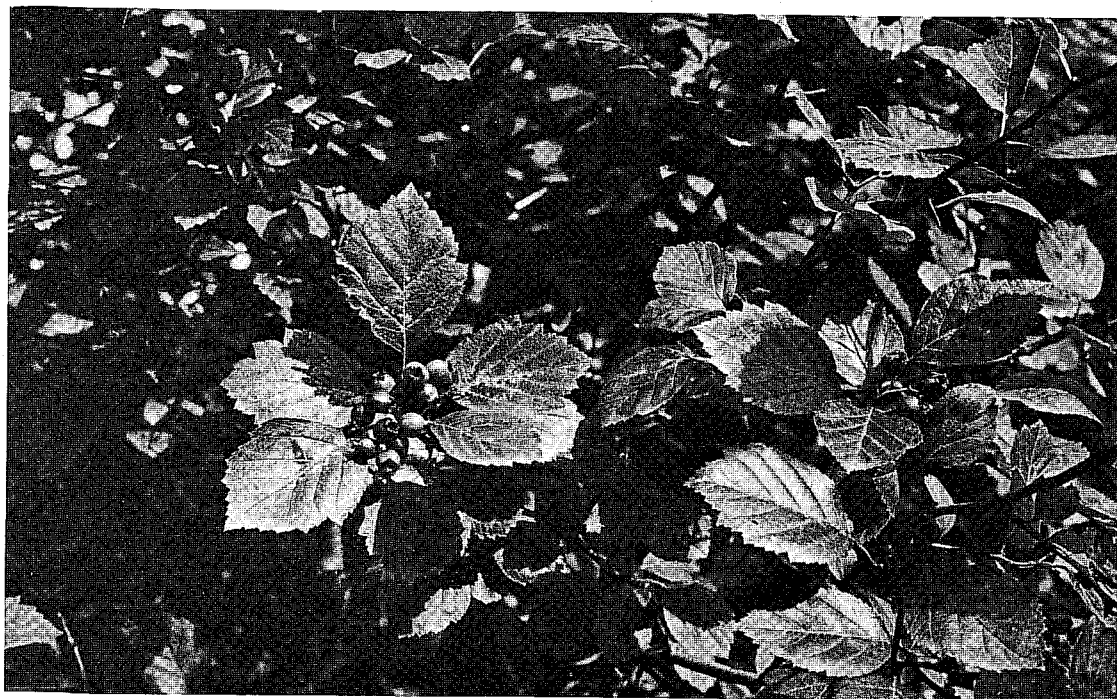


Fig. 79. Red hawthorn (*Crataegus columbiana*)—Robert D. Turner

The dry and seedy berries are edible. They were eaten fresh or mashed and formed into cakes about one centimetre (half an inch) thick and ten centimetres (four inches) in diameter and dried on rocks or racks for later use, to be eaten like cookies (ML; Spier 1938:25). These berries were gathered in August (Ray 1932:103); in Northern Okanagan, around Vernon, the approximate month of August is called “xexáytn” (‘red thornberry time’) (Lerman 1952-54). Ray (1932:103) stated that these berries invariably spoiled when stored, and were only eaten fresh, either whole or mashed in a mortar. ST felt these berries were not eaten. Lerman (1952-54) stated that the Northern Okanagan did not dry them.

The thorns were used as probes and needles (Lerman 1952-54) and aspens in a type of “ball and pin” game employing a tule ball (Ray 1932:161; Spier 1938:192). An area about three kilometres (two miles) northwest from Hedley along Highway 3 is called “a7klh-xexáyilhp” (‘having red thornberry bushes’) (HR); this same name is applied to the town of Oroville (Lerman 1952-54).

Black Hawthorn, or Black Thornberry (*Crataegus douglasii* Lindl.)

berries: sxwa7ník (ST; Lerman 1952-54; Spier 1938:29; Teit 1930:238; Ray 1932:43, 103; Elmendorf 1935-36)

bush: sxwa7wx7ankílhp (ST; ML; Lerman 1952-54; Elmendorf 1935-36)

ST and LPR state that this bush was named after prickly-pear cactus (‘sxwiyína7’) because of its long spines. Thornberries were gathered during late July and early August (HR; Spier 1938:25), or according to Ray (1932:103), throughout the fall. NF’s mother used to say that when these berries begin to get ripe, usually around the end of July, it is a sign that mountain huckleberries are beginning to ripen in the Sanpoil area. Elmendorf (1935-36) records that for the Lakes people they were the latest of all the berries, being picked late in the fall. They are considered poor eating because they are dry and seedy, but bears and other animals like them. Children used to eat them, but ST’s grandmother told her she would get a stomach ache if she ate them. However, like the red thornberries, they were mashed and dried into thin, hard cakes. These were sometimes decorated.

The dried cakes were eaten as a snack on winter evenings and were used as crackers to dip into deer-marrow soup to soak up the fat (ML). The Southern Okanagan dried them loosely, like saskatoon berries (Spier 1938:25). The Lakes people baked them in front of a fire on slabs of wood, then stored them in grass baskets; they were so dry they did not have to be stored in parfleches as most fruits were. They were then soaked in water and eaten. They could also be prepared by being crushed and formed into cakes (Elmendorf 1935-36). Sometimes the berries were mixed with pounded, dried salmon bones with some meat attached (Spier 1938:25). Ray (1932:103) stated that the dried berries would keep for only a short time without turning mouldy.

Both the Okanagan Creek and Meadow Creek areas in Northern Okanagan territory are called “a7klh-sxwa7wx7ankílha7p” (‘small place of black thornberry bushes’) (ML; JA; Lerman 1952-54). This same name is applied to an area north of the east end of the present-day Kettle Falls bridge across the Columbia River (Bouchard and Kennedy 1979). An area at the west end of Palmer Lake is called “txwa7wx7ankílhpáks” (‘black thornberry bushes on the point’) (HR).

The wood was occasionally used to make digging sticks, mauls, wedges, and clubs (Lerman 1952-54; Ray 1932:43). ST’s grandfather used to twist the withes and use them to repair barbed-wire fences; they were strong and durable (ST). A solution of the new shoots steeped in hot water, until the water was a light brown, was used to wash a baby’s mouth when it had mouth sores. It was dabbed on with cotton three to four times a day (ST). A tea made from the shoots was taken for diarrhoea (Watkins 1970:32), although ST points out that this was only for diarrhoea in children. ST’s grandmother used the thorns to cure arthritic pain in her hand. She pierced the affected area of her hand with a thorn, then ignited the upper end and allowed the spark to burn right down to the point, which was buried in the flesh. This treatment was very painful, but after a scab had formed and disappeared, the arthritic pain also disappeared (ST) (see also *Fomes fomentarius*).

Wild Strawberry (*Fragaria vesca* L. and *F. virginiana* Duchesne)

berries: tk’imtk’m (ST; ML; Ray 1932:102; Lerman 1952-54; Spier 1938:30; Elmendorf 1935-36; Teit 1930:239; Dumbeck 1945; Gabriel 1954:28)

plant: tk’emtk’emílhp (ST; LP); stek’mílhmíx or stek’mílhp (ML)

mountain variety (*F. vesca*): skw’lkw’ltalh (ST; ML; HR) lit. ‘mountain fruit’

The above names for berries and plant are also applied to garden strawberries. Our informants distinguished two types of wild strawberries: one which is low growing, with smooth leaves and light red berries, growing at low and moderate elevations; and one about 20 centimetres (eight inches) tall, with velvety leaves and long, dark red berries which smell and taste better, which grows in the mountains. The first kind ripens in May; the mountain variety in June (ST; ML; HR). The season lasts about three weeks and the fruits were gathered every day during this time. Elmendorf (1935-36) records that the Lakes people put wild strawberries into birch-bark containers, hung them on limbs or frames, and allowed them to dry partially. They then crushed the berries and formed them into cakes with saskatoon berries to neutralize the tartness. The berries were and still are eaten fresh or canned (ST; LP; NF); the mountain ones are said to be sweeter and better for canning (ST). Spier (1938:26) states that wild strawberries were always eaten fresh by the Southern Okanagan.

The Lakes people apparently gathered the “runners”, or stolons, of wild strawberries at the same time as the berries and used them for tying and binding (Elmendorf 1935-36). The leaves of the low-elevation strawberry were dried by a fire until brown, powdered in a buckskin bag, and applied to the navel of a newborn baby to heal it and keep it from becoming infected. They were used for several days in succession, until the navel had healed. The leaves could also be stored for use during the winter (ST). Strawberry leaf powder was also dusted into a baby’s mouth when it was sore and was applied to any open sore as a disinfectant. The sore was washed out, the powder was applied and deer fat was smeared on over it (ST; Gabriel 1954:28).

Large-leafed Avens (*Geum macrophyllum* Willd.)

ML could not recall the name of this plant but stated that the roots were steeped in hot water and the "tea" drunk by women after childbirth (ML; LA).

Three-flowered Avens, or Prairiesmoke (*Geum triflorum* Pursh)

t'et'ekt'k'ipla7 (ST; ML) (t'ak 'scattered or bunched grass or leaves') lit. 'bunched around the base'; or lhekhlk'ipla7 (ST; ML) (lhak 'bushy') lit. 'bushy at the base'; or swuipst'snk'lip (ML only) lit. 'coyote's beard'; or txwa7xw7ikst (LA) lit. 'many hands (leaves, ends)'

The roots were steeped in hot water and the infusion drunk for colds, flu, and fever. It is also good medicine for lack of appetite due to "poor blood" (ML). It was taken by a woman to "heal her insides", apparently from a vaginal yeast infection (ST), and was drunk as a love potion by a woman who wanted to win back the affections of a man who no longer cared for her (ML).

Oceanspray, or Ironwood [*Holodiscus discolor* (Pursh) Maxim.]

mets'mets'i7lhp (ST; LP; NF; ML; Ray 1932:61)

The wood is extremely hard, especially when heated in the fire. It was used to make digging sticks, arrows, fish-spear heads, teepee pins, bows, gambling game sticks, drum hoops, baby cradle covers, and other items (ST; LP; ML; Ray 1932:61). For bows, it was bound with deer sinew (ML; Ray 1932:87). It could be smoothed by rubbing it with horsetail stems (ML). The leaves were dried while green, then pulverized and the powder used for healing sores (Ray 1932:221). The outer bark was scraped off, dried, powdered, mixed with vaseline, and used on burns (NF).

Mallow Ninebark [*Physocarpus malvaceus* (Greene) Kuntze.]

tsekwtsekwt'ilhp (ML; LP; Ray 1932:222) (tsikw 'blood-red colour') lit. 'blood-red coloured plant'

ML considers this bush to be a type of "mets'mets'i7lhp" (*Holodiscus discolor*). Presumably this is the same species transcribed by Lerman (1952-54) as "tsaqtsa7p" and described as a bush six to seven feet (about two metres) high with a white flower like a lily, whose wood was used to make bows. "Tsekwtsekwt'ilhp" can be used to combat a "jinx" put on one's hunting equipment by a bad person. The bark, including the innermost layer, was stripped off and steeped in cold water for a few days. The infusion was then used to wash one's arrows and other equipment. These were allowed to wind-dry and were then protected from spells. The same bush could also be used to cause other people bad luck (ML). The roots were boiled for about an hour and the "tea" used to treat syphilis. The potion was taken morning and evening. Three doses were usually considered sufficient for a cure (Ray 1932:222).

Silverweed, or Cinquefoil (*Potentilla anserina* L.)

xilxel (HR; Teit 1930:238)

This plant grows at Richter Pass and along the Merritt-Princeton Highway (HR). The root was formerly steam-cooked and eaten, but was not particularly important as a food. ML and ST did not know of its use. After it has been cooked, when it is still hot, it seems to "roll itself over"; it is the only root that does this (HR). The root was also eaten by other Interior Salish groups, including the Thompson, Lillooet, and Shuswap (Turner 1978:187).

Cinquefoil (No. 1) (*Potentilla arguta* Pursh)

ngwa7wa7k'in (LA) (ngwak'in 'bunched at the top') lit. 'bunched at the top (plural) a little bit' (see also yellow Indian paintbrush); takwa7 (ML) (see also sticky geranium)

The first name was applied by ML and ST to yellow Indian paintbrush. On one occasion, ML applied the second name to this plant, but later he used it for sticky geranium. Cinquefoil roots were steeped in hot water to make an infusion drunk by women after childbirth (LA).

Cinquefoil (No. 2) (*Potentilla gracilis* Dougl.)

ktetk'emikst (ML only) 'leaves like wild strawberry'; or txextxita7kst (ML only) lit. 'any small fern'

The roots were pounded and steeped in hot water and the tea drunk as a blood tonic, a general tonic for aches and pains, and as a cure for diarrhoea and gonorrhoea. It was also used externally to wash sores (ML). The two names were given by ML to two different specimens of this plant; he may have been referring to a different plant in the second case, but stated that the roots, like those of the first plant, were pounded up to make a tea for diarrhoea.

Cinquefoil (No. 3) (*Potentilla recta* L.)

txwaxwayu'ixn (ST; ML) (xwaxwayulh 'blue grouse') lit. 'blue grouse's foot/leg'

This species was originally introduced from Europe but is now widespread in the Interior. It was considered a good medicine for both internal and external use. The entire tops, including leaves, stems, and flowers were used. They could be used fresh or hung upside down from trees to dry for later use. For internal ailments, about six leaves were steeped in hot water and the infusion drunk. This was good for all types of internal troubles. For external use, the leaves and stems were pounded and applied directly, as a poultice, to open sores and wounds. If dried plants were to be used they had to be soaked first in cold water, then pounded (ML). The name and uses mentioned may have applied originally to an indigenous species of *Potentilla*.

Bitter Cherry [*Prunus emarginata* (Dougl.) Walpers]

bark: peklhan (ST; ML)

tree: peklhan'ihp (ST; ML; LP; NF; Ray 1932:88); or peklhan'ihm'ix (ST; ML)

The term "peklhan" is often applied to the berries and to the entire tree as well as to the bark (ML; HR). The berries are very sour, but were sometimes eaten as a remedy for "sour stomach". They are said to have a laxative effect (ML). The bark, which can be peeled off the tree horizontally, was used to imbricate split cedar-root baskets, and for decorating bows, "tomahawk" handles, and pipestems (ML; LA). The shiny, reddish-brown, inner bark was glued on the wood with fish slime mixed with ochre paint (ML). To make a hand-hold for a bow, the bark was cut spirally and wrapped around the bow for about 15 centimetres (six inches), then sealed with grand fir pitch (Ray 1932:88). The brown-coloured bark from the roots is used to imbricate cedar-root baskets (ST). The Braeside area on the east side of Skaha Lake near Penticton is called "a7klh-peklhan" ('place of bitter cherry') (ST), and a certain creek between Oroville and Ellesforde is called "npeklhan'ihpm" ('having bitter cherry') (HR; Lerman 1952-54).

Chokecherry, or Wild Cherry (*Prunus virginiana* L.)

berries (general): lhexwlhaxw (ST; ML; Lerman 1952-54; Ray 1932:101; Dumbeck 1945; Watkins 1970:31; Teit 1930:238; Elmendorf 1935-36; Spier 1938:30)

tree (general): lhexwlhxwilhp (ST; ML; Ray 1932:103; Elmendorf 1935-36)

dark variety: stephlxialhne7w (ST; ML) (xialhne7w 'sun') lit. 'covered away from the sun'

red variety: sk'elu7salhk (ST; ML) (sk'elwis 'old spring salmon') lit. 'old spring salmon fruit'

small, dark red variety: nts'ewts'agw-wisxn (ST; ML) (ts'agw 'tasteless')

The dark-fruited variety of chokecherry is known botanically as var. *melanocarpa* (A. Nels.) Sarg., while one of the red-fruited types is probably var. *virginiana*; but the other is not recognized botanically. The general names are also applied to cultivated cherries. July is named after chokecherries in Northern Okanagan, although they do not actually ripen until mid-August (Lerman 1952-54; Spier 1938:28). They were eaten fresh or mashed, seeds and all, and sundried in thin cakes on racks, so that they did not have to be turned over (ML; Spier 1938:28). They could also be dried separately, like raisins. When dry they were pounded, together with salmon heads, tails, or eggs, or were soaked in water for several hours (Spier 1938:28). Sometimes they were boiled with salmon or meat. The Northern Okanagan traded dried chokecherries with the Thompson people at Merritt for dried salmon (Lerman 1952-54). The Lakes people did not use chokecherries to any extent because they did not like the stones. They mashed them with their seeds in August then mixed them later with other berries, or else dried them alone, to be later soaked and eaten by themselves (Elmendorf 1935-36). In winter, the dried cherries were boiled in water to make a tea that was especially good for sick people (Watkins 1970:31; Lerman 1952-54). The branches were also made into a tea which was drunk as a beverage as well as a medicine (see below) (Ray 1932:221). NF's mother told her of another, rather unique, way of storing chokecherries. Entire branches, with fruit attached, were picked and placed in raised, rock caches, made with the shale rock that is common in Sanpoil country. The chokecherries would keep fresh for many months and, in fall, and even midwinter, could be uncovered and eaten.

Chokecherry wood was occasionally used for carving such items as darts, used in a throwing game (Lerman 1952-54). The wood, branches, and bark, especially the bark from the sunny side of the dark-fruited variety, was boiled in water to make a medicinal tea good for coughs, colds, and other ailments such as diarrhoea (Lerman 1952-54; Watkins 1970:31; Ray 1932:221; ML; LA). The bark was removed and the wood scraped until it was pasty. This was applied as a poultice to a woman's stomach to eliminate the "stretch marks" caused by pregnancy (ML). The branches were often boiled with those of "red willow", and the roots with the roots of "red willow", to make a general tonic, good for any type of sickness (ST). The seeds were mashed and taken as a stomach medicine (ML), but be warned, they contain cyanide and should not be taken in quantity (Kingsbury 1964:366). The pitch, which coagulates on the outside of the branches, was boiled to make a tea which was good as a laxative and was also taken for smallpox. (Lerman 1952-54). The area of Cherryville, about 32 kilometres (20 miles) east of Lumby, is called "a7klh-lhexwlháxw" ('place of chokecherries') (JA). It is not known whether the two names are related. When the chokecherries start to ripen and "get their colour", it is an indication that the spring salmon are coming up the Okanagan River to spawn (ST).

Greasewood, or Antelope Bush [*Purshia tridentata* (Pursh) DC.]

ts'kw'ásk'eístn (ST; CP; NF; LP; ML; Lerman 1952-54; Ray 1932:36, 217)

Our informants regarded this as "a type of sagebrush" — the biggest kind, which grows generally throughout most of Okanagan-Colville territory. It used to grow only as far north as Okanagan Falls, but has recently spread to Kaleden (ST). Deer like to eat it; you can smell it on their meat when they have been browsing it (ST). It was formerly used as fuel. The branches were broken off at ground level. They make a good, hot fire. The Sanpoil-Nespelem used the bark for weaving bags, garments, and soft baskets (Ray 1932:36, 45). It is still used today by some people to make the initial fire used in the pit-cooking process (LP; NF; CP). Children were cautioned not to play around this plant because it has lots of wood ticks (ML). The "berries" were crushed and mixed with water to make a concoction for treating constipation and haemorrhaging (Ray 1932:217).

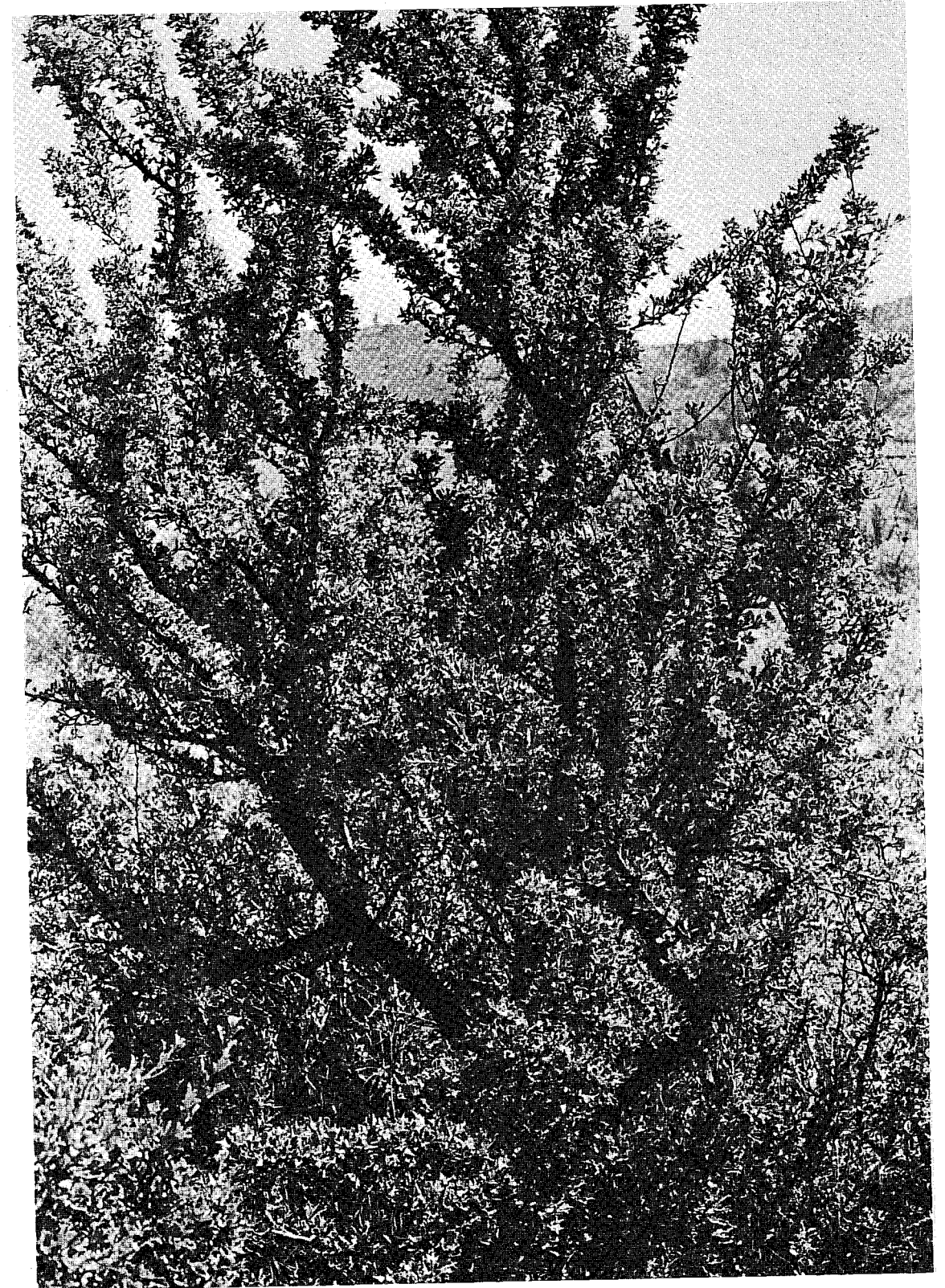


Fig. 80. Greasewood (*Purshia tridentata*)—Nancy J. Turner

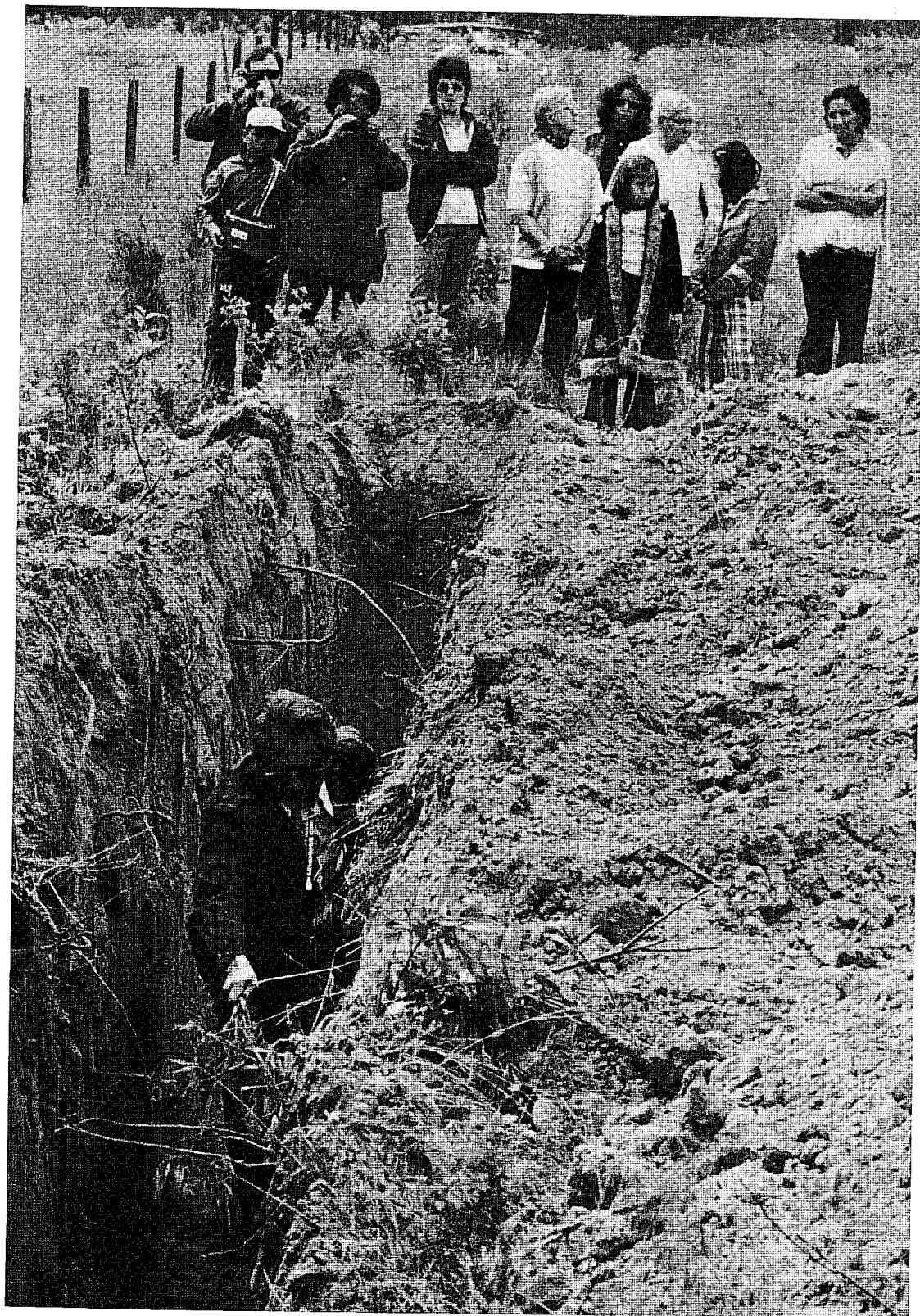


Fig. 81. Charley Quintasket, a Lakes Indian from the Colville Reservation, "brushing out" a grave with wild rose branches in May 1978, before a "reburial" ceremony at Inchelium of skeletal remains exposed by the water of Franklin D. Roosevelt Lake—D. I. D. Kennedy

Wild Rose (*Rosa acicularis* Lindl., *R. nutkana* Presl., *R. gymnocarpa* Nutt. and *R. woodsii* Lindl.)

fruits: skwekwíw (ST; ML; Teit 1930:239) (kwiw 'cone-shaped') lit. 'little conical shape'

bush: skwekwewílhp (ST; ML; Lerman 1952-54; Elmendorf 1935-36; Watkins 1970:32; Gabriel 1954:25; Ray 1932:108); or kpepstl'ííka7st (ML; LA; ST) lit. 'big little-leaves' (see below)

new shoots of wild rose: ntsetskwí7s (AL; LP)

The name for the fruits, or "hips" is sometimes also applied to the flower buds (ST). The larger leafed species, such as *R. acicularis*, were sometimes called "kpepstl'ííka7st" (ML; LA; ST). The orange, outer rind of the hips of all species was eaten sparingly, but one could not eat the seeds or he or she would develop a condition called "nxwixwayúps" ('itchy rear end') (ML; LP; Elmendorf 1935-36). Ray (1932:108) states that the hips were a good famine food, since they were available in winter, but were not otherwise eaten. Coyotes, both the mythological character and also the present day animals, like to eat the fruits; ST has seen them eating them in winter. In boiling foods such as bitter-root and "white camas" in cedar-root cooking baskets or pots, rose leaves were often placed under and over the food to flavour it and to prevent it from burning (Watkins 1970:32; ML; Gabriel 1954:25). A fishing lure was sometimes made by tying ant larvae onto a rose-flower with horsehair (Lerman 1952-54).

Rose leaves were chewed and applied directly to bee stings to reduce the swelling and pain (Watkins 1970:32; ML). Hunters boiled or steeped the branches in water and poured the solution over the body after sweatbathing to get rid of the human scent and prevent wild animals from smelling them and being scared off (ML). Sweatbathers sometimes drank a tea of boiled rose leaves and branches, stinging nettles, and the boughs of Douglas-fir and red cedar. They also used this tea to wash their bodies and hair (ML; WA). A person could obtain good luck in fishing by soaking his lines and nets in the water from the boiled branches of wild rose (NF).

Rose bushes were and still are especially important as protective agents against bad spirits and ghosts. When a person has died, rose branches are boiled to make a tea which is drunk to protect one from being "haunted" — "so the dead person won't give you any bad luck" (ST; ML). This tea was also used as washing water for one who was being jinxed by some bad person. After a death, rose branches are placed all around the house and yard of the deceased, especially across paths and over doorways, to keep his or her spirit from returning. Three branches, 60 to 90 centimetres (two to three feet) long, are used by an Indian doctor to sweep out the grave before the corpse is lowered into it; otherwise someone else's spirit might be buried with the dead person. "Someone alive might be drawn down into the grave with the corpse" (ML). All personal articles and areas frequented by the person when he or she was alive were particularly subject to being haunted by that person's ghosts. Thus, rose branches were placed under the dead person's bed, under the mattress, under steps, and around a stove or work area. The cradle of a dead baby was purified by filling it with rose twigs for two weeks. During this time the mourners drank a tea of rose leaves (ML; ST; Lerman 1952-54). Other thorny or prickly plants such as juniper were also used for protection against spirits, and often these were mixed with rose branches to make them even more effective.

A valley on the west side of the Kettle River, northeast from Republic, is called "nskwekwewílhp" ('having wild rose bushes') (ML).

Wild Raspberry (*Rubus idaeus* L.)

berries: lhágla7 (ST; ML; Ray 1932:102; Elmendorf 1935-36; Lerman 1952-54; Spier 1938:29; Teit 1930:238; Gabriel 1954:26; Dumbeck 1945)

bush: lhelgálhmeix (ST; ML)

These names also refer to garden raspberries (ST; ML). The wild ones are smaller but are considered better tasting. Some grow in the mountains and have small bushes, about 30 centimetres

(one foot) high, while lowland types have bushes up to 1.5 metres (five feet) high. The berries taste the same and ripen from late June to September. They were, and still are, eaten fresh, or can be dried, canned, or frozen. The Southern Okanagan and the Sanpoil-Nespelem apparently only ate them raw (Spier 1938:26; Ray 1932:102). The Lakes people ate them fresh, dried, or crushed into juice (Elmendorf 1935-36).

The branches were boiled to make a tea which was drunk as a physic, and for heartburn and diarrhoea. They can be used any time, summer or winter. To clean out your system completely, the tea is drunk every day for a week (ST). The roots were boiled to make a tea for constipation. One or two cups were drunk hot, in the early morning, and again the following morning if the first dose had no effect (ST).

Blackcap, or Black Raspberry (*Rubus leucodermis* Dougl. ex T. & G.)

berries: mtsakw (ST; ML; LP; NF; Teit 1930:238; Elmendorf 1935-36; Gabriel 1954:26; Griva 1902; Ray 1932:102)

bush: metskwílhmíx (ST; ML); or metskwílhp (LP; NF)

This plant, sometimes called "wild blackberry", grows up in the hills and on sidehills and is especially common after a forest fire. The berries ripen from May to July and are very popular for eating. They were formerly dried, like raspberries, and stored for winter use, when they would be eaten with dried meat or fish, or soaked in water, or boiled, and eaten as a dessert (ST). The Lakes people frequently mixed them with other berries (Elmendorf 1935-36).

A rocky sidehill on the east side of the Kettle River, 10 kilometres (six miles) south of Cascade Falls is called "nmtsakwm" ('having blackcaps') and was a major area for picking blackcaps (ML). A mountainside on the west side of the Ashnola River, about 16 kilometres (10 miles) upriver from where the Ashnola joins the Similkameen River, is called "a7klh-mtsákwm" ('place of blackcaps') and was frequented by people in that locality (HR).

Thimbleberry (*Rubus parviflorus* Nutt.)

berries: pálpelkn (ST; ML; Lerman 1952-54; Spier 1938:30; Ray 1932:102) (pil 'flat') lit. 'always flat-headed'

bush: pelpelknílmíx (ST; ML; Ray 1932:102; Elmendorf 1935-36)

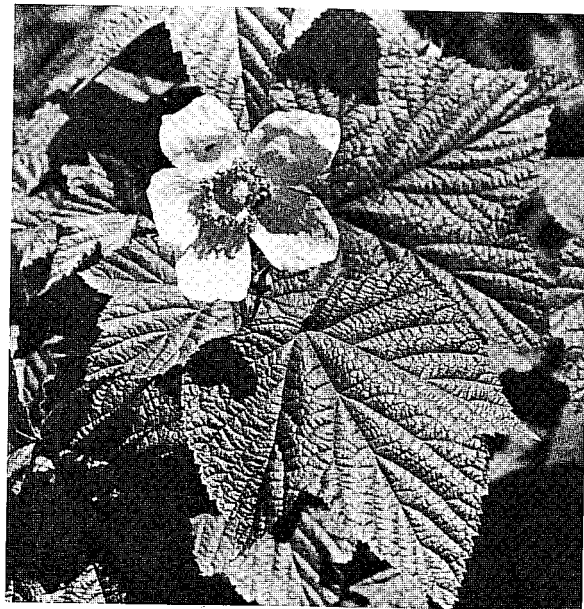


Fig. 82. Thimbleberry (*Rubus parviflorus*)—Nancy J. Turner

The plant is common, in gulleys and along creeks. The berries were eaten fresh (HR; ST; LP; NF). ST has never heard of them being dried. The Southern Okanagan ate them only fresh (Spier 1938:26). Elmendorf (1935-36) records that the Lakes people dried them partially but seldom completely. Among the Lakes they were highly prized, although hard to gather because only a few berries ripen at a time, and the patches had to be picked, over and over, to get all of the fruit (Elmendorf 1935-36). Ripening continued for about a month, from June to July or July to August depending on the area (LA; Ray 1932:102; Elmendorf 1935-36). The large leaves were sometimes used to line steam-cooking pits (LA; Elmendorf 1935-36), or to line berry baskets and place between layers of berries to keep them fresh (NF; CP). The roots were used to make a medicine for teenagers with acne. A single root, up to 90 centimetres (three feet) long, was coiled up and boiled in water for about 15 minutes, until the liquid turned yellow-orange. This solution is tasteless and was drunk for about a week, as often as one would normally drink water, by young people with pimples and blackheads. In springtime the young leaves were rubbed on the face for the same problem (ML). A tea, made by steeping the roots in hot water, was drunk as a medicine for stomach ailments (ST).

Mountain-ash (*Sorbus sitchensis* Roemer and *S. scopulina* Greene)

berries: ts'ets'kwíkw (ST; ML) (ts'akwt 'type of sour taste') lit. 'like ts'kwíkw' (see blue elderberry)

tree: ts'ets'kwekwíha7p (ST; ML) lit. 'like blue elderberry bush'

yellow-fruited variety (possibly *S. scopulina*): tkwerkwerí7s i7 ts'ets'kwekwíha7p (LA) lit. 'yellow-berried mountain ash'

The cultivated mountain-ash, *S. aucuparia* L., is called by the same name as the wild species. Mountain-ash is apparently named after the blue elderberry bush, because the leaves and fruit are similar (ML).

It is uncertain whether the berries were formerly eaten. The branches were used to make a medicine for young children who wet the bed. Six to eight branches, each about 6.5 millimetres (¼ inch) in diameter and 20 centimetres (eight inches) long, were steeped in hot water. The infusion was given to the child just before bedtime. One hour later the child was awakened to urinate. At 4:00 in the morning another dose was given. The procedure was used every night for a week to 10 days (ML). An area near Buckhorn Creek about 30 kilometres (18 miles) towards Republic from Inchelium is called "a7klh-ts'ets'kwekwíha7p" ('place of mountain-ash') (ML).

Flat-topped Spiraea (*Spiraea betulifolia* Pall.)

tkwekwéikwíle7kw (ST; ML) [kwil 'red; -le7kw pertaining to "wood" (diminutive)] lit. 'a bunch of little red sticks' (for non-blooming plant); nseselēkín (ST; ML) [sal (the plural form of tsak 'sitting upright'); -kín 'head/top'] lit. 'a bunch of little things sitting upright on top' (used when plant is in bloom); or septl'emílh (ML)

The last term was applied to this plant on only one occasion by ML. He said it was the proper term for the plant called "seíáxts i7 xwuxwtl'mílh" ['friend of Labrador tea' (see *Ledum glandulosum*)]. He must have been confused in the identification of at least one of these plants.

Before the plant blooms, the branches are boiled to make a medicine for menstrual pains or heavy or prolonged menstruation (ML). When it blooms, the whole plant is a good medicine for anyone. It is made into a tea, which is drunk for poor kidneys, ruptures, colds, and abdominal pains (ML).

Madder Family (Rubiaceae)

Bedstraw (*Galium aparine* L.)

nkw'ets'kw'ets'tnmúlh (ST; ML) (nkw'its'tn 'the sibling of a deceased spouse who marries the husband or wife of that spouse') lit. 'always causing someone to be nkw'its'tn'; or ts'ep'ts'ap'k'ewítsya7 (ML) [ts'p'ak' 'sticky' (referring to the hooked fruits) (see also burweed)]

It is said that one should not 'play around' with this plant because if you fool with it, you will continuously have brothers or sisters dying and you will be marrying their spouses (it was an Okanagan-Colville custom to marry the spouse of a deceased sibling) (ML; ST).

Citrus Family (Rutaceae)

Orange (*Citrus auranticum* L.)

tkwerkwerí7s (ST; ML) (kwerí7 'yellow/green')

Oranges were introduced by Europeans and are now very popular amongst Okanagan-Colville people.

Willow Family (Salicaceae)

Trembling Aspen (*Populus tremuloides* Michx.)

mélméltilhp (ST; ML; Lerman 1952-54) (mil 'leaf shimmering in the breeze') lit. 'leaves-always-shaking tree'

WA's upper ranch, on the Shingle Creek road about eight kilometres (five miles) from the junction of Green Mountain Road near Penticton is called "a7klh-mélméltilhp" ('place of aspen') (ML). Aspen logs are the best on which to scrape deer hides, especially in early May when the bark peels off easily (LA). The white powder from the bark was applied directly to the underarms and feet as a deodorant and anti-perspirant (LA; ML). If one gets hit in the eye with a stick, he takes the young growth of an aspen, steeps the inner bark overnight in cold water, and then uses the solution to bathe his eye for several days, morning and night. This eliminates any discoloration (ML). A brew of aspen branches was used as bathing water for those with rheumatism, and a brew of branches and rootlets was drunk for indigestion and syphilis (Teit 1930:294).

Black Cottonwood [*Populus balsamifera* L. ssp. *trichocarpa* (T. & G.) Brayshaw, syn. *P. trichocarpa* T. & G. ex Hook.]

mulx (ST; ML; Lerman 1952-54; Dumbeck 1945)

buds: st'its'mkn (ST; AL); or st'ats'mkn (ML; LP) (t'its' 'pitch') lit. 'pitch on top'

"cotton" from catkins: skwalhkn (ST; ML; LP; NF) (skwalht 'cottony') lit. 'cotton-top' (this term is general for any cottony seed-heads)

Cottonwood trees were sometimes used to make dugout canoes called "smelxiwlh". These were very light (ML; Lerman 1952-54; Hill-Tout 1911:132). The wood was used as a fuel for smoking hides. The upper branches, allowed to dry all summer, were used to make fire drills, and the dead roots were used as hearths for making friction fires (Spier 1938:59). A thin board of cottonwood was placed at the top of a cradle to flatten a child's head (LA; Lerman 1952-54). The poles were used to construct salmon weirs (Ray 1932:62). Recently the wood was used to make the sideboards of saddles (Ray 1932:118). Cottonwood ashes were used like soap to clean buckskin clothing (Gabriel 1954:27) and for washing the hair (Lerman 1952-54). The resin from the bud scales was used as glue. When the scales fell to the ground in spring, they were gathered, heated,



Fig. 83. Black cottonwood (*Populus balsamifera* ssp. *trichocarpa*)—Robert D. Turner

and squeezed to extract the resin. This was used to glue arrowheads onto shafts, and also in making spears, fish-hooks, and canoes. It is said to be the strongest cement known in the old days, even stronger than fish slime glue (ST; Lerman 1952-54; WA; ML). This resin, which is yellow, was also mixed with various types of pigments, from alder bark, charcoal, larch, wolf lichen, and others, to make paint (Lerman 1952-54). It can also be harvested from the buds when still on the trees; the buds are picked off, sliced, and boiled in grease. Large sheets of cottonwood bark were cut from standing trees by cutting around the trunk horizontally at two points, making a vertical cut between them, and peeling the bark off. This was made into rectangular containers or "barrels" for storing food underground or above ground. They had the advantage of keeping rodents away from the food (Spier 1938:39; ML; Lerman 1952-54). Cottonwood bark was also used to line storage pits to protect the roots and other foods from gophers (ML).

A medicine for gonorrhoea was made by steeping 12 cottonwood buds in 500 millilitres (two cups) of hot or cold water until the solution turned dark brown. A small quantity of this medicine was taken each morning and night for six days. It is very strong, but said to be effective. A rule for making it is to use one bud for each day the remedy is to be taken (ML).

The trembling or shimmering (called "kiyúmkstn") of cottonwood and aspen leaves when there is no perceptible wind is a signal that bad weather is coming (ML). La Fleur Creek is called "kmúmeixm" ('small amount of cottonwood') and is situated on the west side of the Columbia River, about 19 kilometres (12 miles) south of Kettle Falls (ML). About 3.2 kilometres (two miles) south from "kmúmeixm" along the Columbia is a place called "nméixáka7s" ('cottonwood on trail') (AL; ML).

"Wild Weeping Willow", or Peach-leaved Willow (*Salix amygdaloides* Anderss. and *S. lasiandra* Benth.)

hawí7lhp (LA; WA; ML)

These trees occur rarely; they are found around sloughs and along river banks (WA). The branch tips were boiled to make a strong solution for soaking the feet and legs to relieve cramps (ML).

“Grey” Willow (*Salix bebbiana* Sarg., *S. scouleriana* Barratt, and other *Salix* species)

páxwpexlhlp (ST; ML; Lerman 1952-54; Ray 1932:36; Elmendorf 1935-36) (páxwam ‘to spread outwards’) lit. ‘always spreading outwards tree’ [Elmendorf (1935-36) translates this as lit. ‘easy to peel (tree)’]

Willow twigs were used in smoking hides when a white colour was desired (Lerman 1952-54). The young branches, or withes, were used in making hide-stretchers, fish traps, basket hoops, and canoe frames (Ray 1932:63; Elmendorf 1935-36; Lerman 1952-54). They were also twisted into a strong rope called “syílu7” (ST; HR), as were the young branches of saskatoon and other species. The bark was peeled off and twisted to make a cord called “skserálekw”, used for tying things together, for making bags, dresses, and other items, and for sewing birch bark onto basket frames (ST; HR; Elmendorf 1935-36; Spier 1938:42, 46, 62, 64; Lerman 1952-54). To make a woman’s skirt, the bark was peeled off, stretched out while still green, hung up to dry for a day, then softened by rubbing a stone scraper across it many times (Spier 1938:68; Lerman 1952-54). The inner bark was shredded into a cotton-like substance, which was used for diapers, wound dressings, and sanitary napkins for women during menstruation and after childbirth (Lerman 1952-54; ST). It helped “heal a woman’s insides” (ST). Willow leaves were used for wrapping and serving fish. The sticks were used daily to clean the teeth (Lerman 1952-54).

The branches were boiled to make a tea which was drunk by a woman for several months after childbirth to increase the blood flow and hence speed her recovery. It also helped the baby, who received the medicine through the breast milk (ST; Lerman 1952-54). It was also taken to counteract diarrhoea (Ray 1932:220). The inner bark of the willow contains the medicinal principle (ST). A poultice of the inner bark was applied directly to the skin over a broken bone to help heal it. It had to be kept damp (HR). The outer bark and sap were scraped off the young branches, dampened slightly, and applied in a wad to a bleeding wound to stop the flow of blood. This treatment took some time to work but was very effective (ML). AL describes a similar remedy for a serious cut, but utilizing a poultice made from the inner cambium of “grey” willow mixed with powdered tree fungus. This had to be applied with great caution, however (AL).

“Kpexwpexlhlpíkñ” (‘grey willow on ridge’) was the name of a small island, now underwater, formerly located on the west side of the Columbia River, just south from the mouth of Nez Perce Creek (LP).

“Silver” Willow (*Salix exigua* Nutt.)

pagpagaýlhp (ST; ML); or pagpagaýlhmíx (ML) (pag ‘grey’) lit. ‘grey (plural) tree or bush’

Fishermen used to break off branches of this willow and lay their fish on them to keep them clean. The bark makes excellent cord and was used in the same manner as the bark of other types of willows (ML; ST; HR). Rope made from the bark alone is called “skserálekw”, while that made by twisting the entire branches is called “syílu7” (HR; see also “grey” willow and saskatoon).

Sitka Willow (*Salix sitchensis* Sanson)

kweíkwea7ílhlp (ML; LP) lit. ‘yellow/green tree’; or kweíkwea7íilha7p (HR) lit. ‘little yellow/green tree’

This willow was described by HR and ML; LP provided a specimen. The stalks were steeped in hot water and the solution drunk for stomach ailments (ML). A stream located east of South Twin Lake (which is near Inchelium) is named “skwerálhpíws” (‘*S. sitchensis* in the middle’) because there are many of these bushes there (LP).



Fig. 84. Louie Pichette twisting a young branch of “grey” willow into a rope, 1979—D. I. D. Kennedy

Sandalwood Family (Santalaceae)

Bastard Toadflax [*Comandra umbellata* (L.) Nutt.]

skamálhk (ST; ML) (ke7ím 'breast'; -alh_k 'fruit') lit. 'breast fruit' (cf. also Douglas-fir sugar);
k'ep'xwilhp (Teit 1930:239) (cf. also hazelnut bush)

ST and ML named this plant by a term that also refers to Douglas-fir sugar, but Teit (1930:239) called it by the same name as hazelnut bush. Children used to suck the flowers of *C. umbellata* to get the sweet nectar (ST; ML).

Saxifrage Family (Saxifragaceae)

Alumroot (*Heuchera cylindrica* Dougl. ex Hook.)

yititemnílhp (ST; ML) (yit 'bitter type of taste') lit. 'bitter tasting plant' (referring to the roots)

The root is said to be the fastest healing of all medicines (ML). For a sore throat, a piece of fresh root was held in the mouth and sucked until all the flavour was gone; then it was renewed. An alternative method was to boil the root and rinse the mouth out with the solution. This medicine was used especially for children and babies (ML). The outer covering of the root was removed, and the inside was mashed and used directly as a poultice for sores and cuts, or steeped in hot water to make a wash for the afflicted area (LA). For diaper rash, the root was mixed with puffball spores and used as a salve (ML). The root was often boiled with Oregon grape roots to make a tonic for the "changing of the blood" in March and November (ST; ML).

Fringe-cup (*Lithophragma tenella* Nutt.)

sts'ets'a7kw'úla7xw (ST; ML) lit. 'ground flowers'

This is a general term for various types of wild flowers. This plant was not used for anything (ST; ML).

Matted Saxifrage (*Saxifraga bronchialis* L.)

sxwexw7ína7 (ML only) lit. 'little cactus'

This name is applied because the plant is small and prickly. It was not used for anything (ML).

Figwort Family (Scrophulariaceae)

Red Indian Paintbrush (*Castilleja hispida* Benth. and *C. miniata* Dougl. ex Hook.)

kwelkwíl (ST; ML) (kwíl 'red') lit. 'red all over' (applied to a specimen of *C. hispida*); or
kwelkwelágkn (LP only) 'red-headed (pileated) woodpecker' (applied to a specimen of *C. miniata*)

It is unlikely that any distinction was made between the species of red-flowering paintbrushes by the Okanagan-Colville. ST was shown a specimen of *C. hispida* and described it as "just a nice flower". NF, CP and LP were shown *C. miniata* and knew of no uses for it. ML states on one occasion that the plant he later called "kwelkwíl" (*C. hispida*) was pounded up and put in one's moccasins to cure "sweaty feet", although at this time he did not recall the Indian name of the plant.

Yellow Indian Paintbrush (*Castilleja thompsonii* Pennell)

ngwaǵwa7kín (ST; ML) (ngwakín 'bunched at the top') lit. 'bunched at the top (plural) a little bit'

Although the name is the diminutive form of the same for *Erigeron philadelphicus*, the two plants are not considered to be related in any way (ST; ML). The tops of the paintbrush were dried, powdered, and placed on an open cut to draw out the germs (ML).

Blue-eyed Mary (*Collinsia parviflora* Lindl.)

kwekwikwágy seláxts (ST; ML) lit. 'friend/cousin of blue violet'

This little plant was not used for anything. ST regards it as being younger than the blue violet (cf. *Viola adunca*).

Lousewort (*Pedicularis bracteosa* Benth.)

txextxíta7kst (ML; HR) lit. 'little jagged edges'

This name is usually applied to small ferns, such as *Woodsia scopulina* and *Gymnocarpium dryopteris*. This species is called by the same name because the leaves are fern-like. No uses are known for it (ML; HR).

Beard-tongue, or Shrubby Penstemon [*Penstemon fruticosus* (Pursh) Greene]

nt'et'ekt'kikñxn (ST; ML; WA) (t'ak 'scattered or bunched grass or leaves'; -xn pertaining to 'foot end') lit. 'a bunch of little scattered grass piled under the foot'; nt'ekt'kink (ST; ML; Spier 1938:165); or ktsekwtswíkst (ST; ML; LA) (tsikw 'blood-red colour') lit. 'blood-red coloured leaves/branches'

The leaves were mashed up and placed inside moccasins for insoles (ML). The raw root was placed directly on the tooth for a severe toothache, but if used too frequently it will destroy the tooth because it is so strong (LA). The tops were steeped in hot water to make a medicine for both external and internal use. For internal consumption, it was made very weak and was drunk when still hot for flu, colds, headaches, and internal disorders. It is very bitter (ML; Spier 1938:165). For external use it was allowed to become twice as strong and was used to bathe the skin for acne and pimples, and for sore and itchy scalp; it is said to heal quickly. It can be used on animals as well as humans (ML).

Blue Penstemon (*Penstemon confertus* Dougl. and *P. pruinus* Dougl. ex Lindl.)

lhelheklhkíli7s (ST; ML) [lhelhák 'clustered (vegetation)' (cf. *Anemone multifida*); or
tkwiya7sáǵstn (ML) (kwagy 'blue/green') lit. 'causing blue/green colouring' (see also larkspur)

The flowers were boiled and rubbed on arrows and other items to give them a blue colouring which is indelible (ML).

Purple Penstemon (*Penstemon richardsonii* Dougl. ex Lindl.)

nt'ekwt'kwínk (Ray 1932:221; Spier 1938:165) (st'ekwt'ákw 'any bush') lit. 'bushes on the sidehill'

Spier (1938:165) calls this plant "rock sagebrush". About 20 stalks were gathered and steeped in "one half gallon" (about 2.3 litres) of hot water to make a strong infusion which was drunk for typhoid fever. It was taken three times a day (ML). It was also drunk for colds (Spier 1938:165). ML observed that the plant blooms twice a year — in May and June and again in October and November. It can be gathered at any time of the year; the stalks, with leaves and flowers attached, are used (ML). ML remarked that the root is almost impossible to collect because it is always stuck in rock crevices. Ray (1932:221) states that an infusion of the leaves was drunk for a cold or as a general tonic, particularly in children.

Mullein (*Verbascum thapsus* L.)

This is an introduced plant. Our informants did not know of any name or use for it, but Teit (1930:293) mentioned that a decoction of the leaves is drunk for consumption, although this is a modern usage only.

Nightshade Family (Solanaceae)

Tomato (*Lycopersicum esculentum* Mill.)

skwerkweri⁷tsa (ST; ML) (kweri⁷ 'yellow/green'); skwekwíw (ML only) lit. 'rose hip'; or kts'erts'erús (LP only) lit. 'sour eyes'

Tomatoes were introduced by Europeans and are now commonly cultivated in Okanagan-Colville territory.

Wild Tobacco (*Nicotiana attenuata* Torr. ex Wats.)

smañxw (ST; ML; Lerman 1952-54; Dumbeck 1945); smeñxwíhmlx (ML) (referring to the whole plant); or skelexwsmañxw (ML; LP; Spier 1938:66) lit. 'Indian tobacco'

Apparently wild tobacco formerly grew in several locations throughout Okanagan-Colville territory (ML; LP; Lerman 1952-54). It was not cultivated, not even by weeding the wild populations, but was gathered along creeks and moist places. The plants grew up to 90 centimetres (three feet) tall and the leaves were long and narrow, like those of fireweed, but thicker (Lerman 1952-54; ML). One of the places where wild tobacco grew was at Tun Creek, about 11 kilometres (seven miles) north of Riverside, at a place that is about 13 kilometres (eight miles) south of Tonasket on the west side of the highway beside a creek called 'sandhill crane' (Lerman 1952-54). Spier (1938:66) also reports that "smañxw" grew near Riverside. Apparently it also grew high in the hills between Hedley and Chopaka, and in the vicinity of Osoyoos (Lerman 1952-54). In the early 1950's, Lerman made collections of "men's tobacco" (probably flowering) and "women's tobacco" (probably non-flowering) at Tun Creek. He states that the men's type is "stronger" and that women never smoked the men's tobacco and vice versa (Lerman 1952-54). Spier (1938:66), however, reports that formerly the only women who smoked were shamans ("Indian doctors").

The leaves were gathered in the fall and dried in the sun for two days, put into buckskin bags and pulverized, then stored in another bag (Spier 1938:65, 66). Lerman (1952-54) reports that occasionally the leaves were dried near a fire. Apparently this tobacco was always smoked by itself (Spier 1938:66, 193).

Cultivated tobacco (*Nicotiana tabacum* L.) is also called "smañxw"; the word meaning 'to smoke a cigarette' is "mañxwem" (ML).

Potato (*Solanum tuberosum* L.)

paták (ST; ML) (from French "la patate"); or skweñkwíñem (ML) (see *Claytonia lanceolata*)

Potatoes were introduced by Europeans and attained a high degree of importance in the Okanagan-Colville economy. They are still cultivated to some extent today. The name, "skweñkwíñem" ["Indian potato" (*Claytonia lanceolata*)] was used in the Colville area when potatoes were first introduced, but later the French name was applied (ML).

Nettle Family (Urticaceae)

Stinging Nettle (*Urtica dioica* L.)

stsetsíxnt (ST; ML; Spier 1938:54) (tsíxtsext 'stinging hot')

This plant burns and blisters the skin if you touch it. ST remarked that if you get a lot of it, it feels just like many worms crawling over your skin. The new growth was dipped in boiling water and eaten as greens (ML). The root was boiled with arrows to poison them (Spier 1938:54). The fresh plants were used to beat the skin after "sweatousing" and for the pain of rheumatism and arthritis (ST; HR; LP; Ray 1932:219). ST's grandmother had a bad pain in her hip. She went and bathed in the creek, then got her daughter to hit her back with a bundle of 10 or so nettle plants. Then she jumped in the water to "cool off", and had her daughter repeat the beating for three more times,

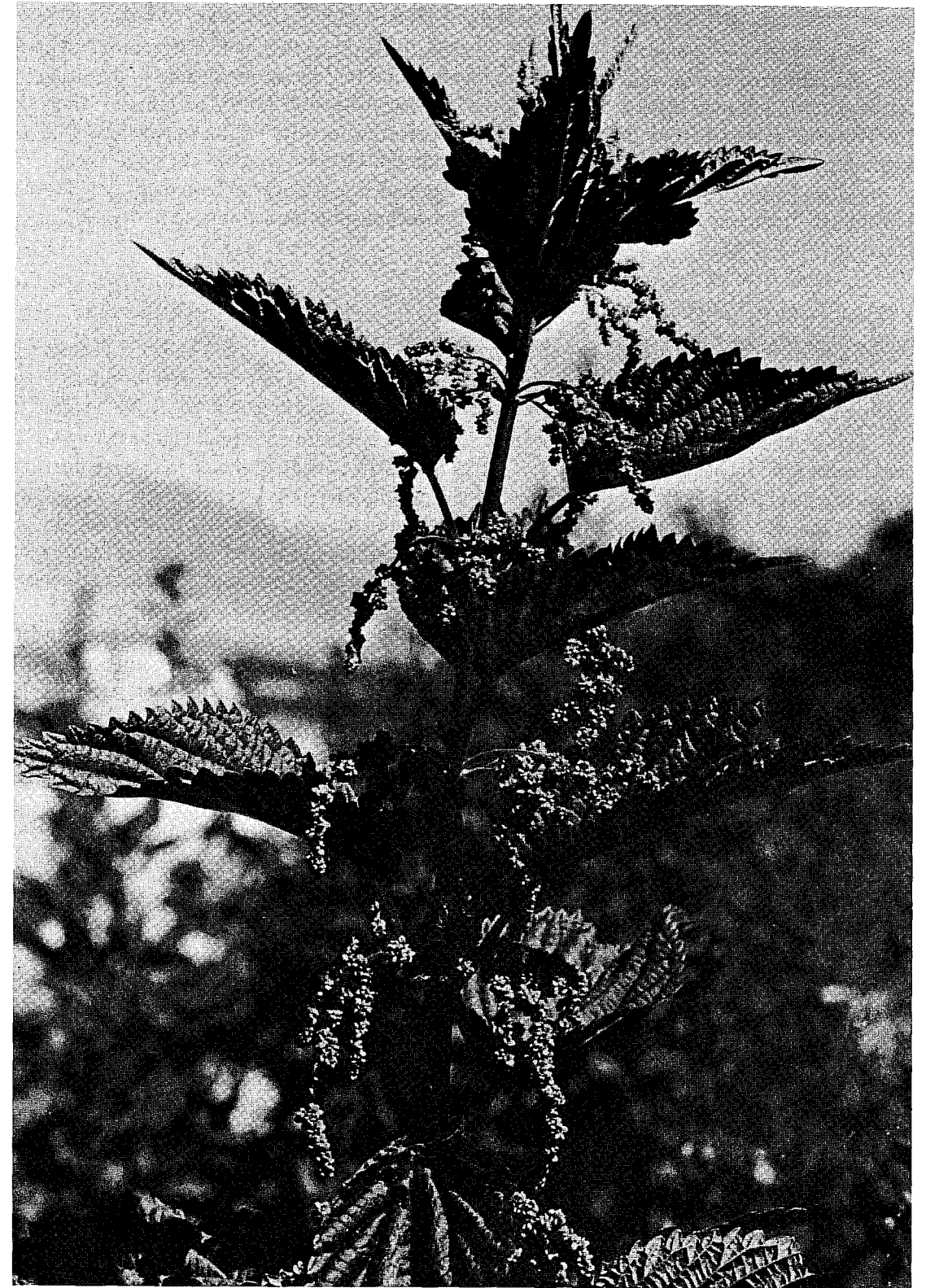


Fig. 85. Stinging nettle (*Urtica dioica*)—Nancy J. Turner

each time with a new bundle of nettles. Each time she jumped into the creek. Afterwards her skin was red all over and she felt the pain going right into her bones. It was very painful for two days, but on the third day, the pain went. This medicine is so strong, it kills all the "germs" (ST).

Stinging nettle was also used to combat witchcraft. If you are being jinxed by some evil person, you take four or six plants and bundle them together and boil them, then bathe in the water. The plants should be thrown in the creek and allowed to float away. "When it burns, that is when it (the jinx) is going to bounce off you and go back to the person who did it" (ST). In Northern Okanagan mythology, Coyote used this plant to combat witchcraft (ST).

A "tea", made by boiling stinging nettle, the branches and leaves of wild rose, and the boughs of Douglas-fir and red cedar, was drunk during "sweathousing" and also used to "wash" the skin and hair (ML; WA).

Valerian Family (Valerianaceae)

Edible Valerian, or "Stink-root" (*Valeriana edulis* Nutt. ex T. & G.)

meságy (WA; LA; Lerman 1952:54); meságwi7 (ML; LP; NF; Spier 1938:30; Ray 1932:100; Elmendorf 1935-36)

This plant has a large, edible, carrot-like root, about 20 centimetres (eight inches) long and five centimetres (two inches) thick, which was dug in August or the fall while the men were hunting. It grows in moist ground at higher elevations (Spier 1938:27). The roots were pit-cooked for as long as 48 hours and eaten like "Indian carrot" (*Perideridia gairdneri*). The cooking pits were like those for black tree lichen, but Spier (1938:27) notes that large "water-lily leaves" [*Nuphar?*] were placed under the roots in the pit. The cooked roots were jet black and had a very unpleasant odour (hence the term "stink-root"), but a sweet taste. The roots were not dried for storage, but wrapped in grass and tule mats and stored in underground pits to retain their moisture; if they should lose their moisture they would lose their sweetness (Spier 1938:27). In winter they were eaten cold, sometimes dipped in soup. They could be kept for about a year (Spier 1938:27; LP; NF). Only the roots of small plants were eaten; the bigger ones were left to produce more seed (Lerman 1952-54).

The roots of edible valerian were utilized extensively by the Southern Okanagan (Spier 1938:27), Sanpoil-Nespelem (Ray 1932:100; NF), Kalispel (R. May, pers. comm.), Spokane (Nancy Flett, pers. comm.), and Flathead (Stubbs 1966). The Lakes used them rarely because they did not appreciate the smell. They ate them alone or with camas bulbs or meat (Elmendorf 1935-36).

Wherever this plant grows, it is believed there are no rattlesnakes. This is because, in a legend, Meságwi7 wanted to marry Rattlesnake, but she refused him because his smell was too strong (LP; Spier 1938:226).

Mountain Valerian (*Valeriana sitchensis* Bong.)

ST and ML did not give this flower a Native name at first, although later ML called it "wist tka7ka7lhlikst" (lit. 'high elevation prince's pine'), and on yet another occasion ML, WA and LA called it simply "tka7ka7lhlikst" (see prince's pine — *Chimaphila umbellata*). Spier (1938:166) refers to a "flowering plant that grows high in the mountains and smells sweet", possibly mountain valerian. The stalk of this plant was pounded up with a hummingbird's heart to make a strong love potion for both men and women (Spier 1938:166).

Violet Family (Violaceae)

Blue Violet (*Viola adunca* Sm. and other *Viola* species)

kwekwikwágy (skw'lkw'alt) (ST; ML) (kwagy 'blue/green') lit. 'a bunch of little blue/green ones (in the mountains)'

Blue violets are found in the mountains, but grow more frequently at low elevations. There is a Northern Okanagan legend explaining why violets are blue in the valleys and yellow in the mountains (ST). The term, "skw'lkw'alt" ('mountain') is applied only to those of upper elevations (ML; ST).

Yellow Violet (*Viola glabella* Nutt. and other *Viola* species)

kwekweikwerí7 k'l-skw'lkw'alt (ST; ML) (kwerí7 'yellow/green') lit. 'a bunch of little yellow/green ones in the mountains'

Yellow violets are regarded as being the same as the blue ones, but growing at higher elevations (cf. blue violet) (ST).

Grape Family (Vitaceae)

Grapes (*Vitis vinifera* L.)

Grapes are called "síya7" in Northern Okanagan, after saskatoon berries, while raisins are called "xewáw ta síya7" ('dried saskatoon berries') or "sema7síya7" ('White man's saskatoons') (ST). Grapes were introduced by Europeans and are now commonly cultivated in the Osoyoos area.

Unidentified Plants

The following plants have not been positively identified botanically. They are listed in the alphabetical order of their Okanagan-Colville names, with those which are not named, but only described, at the end:

enukutkutunawíuxten (Ray 1932:127) — Twice a day for a month after childbirth a mother drank a tonic of this plant to assist her in regaining her strength and to ensure against contacting tuberculosis, which was believed to start after childbirth. ML, AL, LP, and NF did not recognize this term.

kalkwí7stn (ML; Spier 1938:69) — ML recalled hearing this term as a plant name but knew nothing about the plant. Spier (1938:69) describes this plant as being about 30 centimetres (one foot) high, sometimes with a single stalk, and bearing small flowers. According to Spier, this plant, which grows profusely along dry creek bottoms, was used for colouring fibres used in basketry imbrication. Dark red, light red, and blue dyes were all obtained by boiling the roots in water [this is possibly northern bedstraw (*Galium boreale* L.), whose roots were used to make a red dye in other areas (cf. Johnston 1970:319).] The term "kalkwí7stn" was not recognized by NF, AL, or LP.

káli's (Ray 1932:130) (see also "sneknektín") — According to Ray, this is a "grass" which emits a fragrant odour and is found on the river bank. It was placed in a baby's cradle board. This term was not recognized by ML, AL, NF or LP.

kəmutawiya'kín (Ray 1932:54) — The roots were boiled to make a wash water for children, used morning and evening. ML, NF, LP and AL did not recognize the name.

naḡaxuaxa'it (Ray 1932:54) — The leaves were rubbed together to form a lather which was used as a washing agent. AL, ML, LP and NF did not recognize this term.

npekwwi7skáxa7tn (LA; WA) (pakw 'spill something solid') lit. 'spill on horse's back' — This plant is 60 to 90 centimetres (two or three feet) high and has no visible leaves on the stalk, except perhaps for some at the base of the stalk. It has distinctive "lumpy" seeds on the upper end. It grows up in the mountains. It looks like the plant called "selí7st" (identified by ML as *Pterospora andromedea*), and may actually be coral-root (*Corallorhiza* sp.) a tall, red, saprophytic orchid. The tops were pounded up and rubbed on a horse's back when it was sore (WA).

ntsektkwús (ML only) — ML collected this plant, which was a species of buttercup (*Ranunculus* sp.), but the specimen was too poor to identify more precisely.

p'añústn (ML; LA) (p'enám 'laid down (plural)'; -us 'face'; -tn causative) lit. 'used for laying down on the face' — This is described as a spindly plant 30 to 60 centimetres (one or two feet) high, with hardly any leaves and red "colouring" every 1.2 centimetres (half inch) or so along the stalk. This red material was used directly to paint the face for decorative purposes (ML; LA). ML states that it is found only in Colville territory. The description fits the characteristics of strawberry blite [*Chenopodium capitatum* (L.) Asch.], which was used as a red stain by the Thompson people (Turner 1973).

paspaslíken (Lerman 1952-54) — This plant (?) was used for making rope and cord for fishing lines. Lerman gives no description. ML uses the term paspaslíkn (his rendering of Lerman's transcription) to refer to "small drifting twigs in a back eddy" and does not recognize it as a plant name. Lerman's term is not recognized by NF, AL and LP.

pcaí'k (Spier 1938:27, 30) — This is described as the root of a plant that is 45 centimetres (one and one half feet) tall, having thorns in the fall but only grass-like leaves in the summer. It grows in damp areas, such as gullies. The plant was knocked over with a stick and the "bulbs," which are smaller and sweeter than camas, were dug.

p'ustn (NF; CP; Ray 1932:17, 21) — This is a type of "grass" which formerly was found at least in Sanpoil territory (NF; CP) and apparently is called by the same Native name in Spokane (Nancy Flett, pers. comm.). Although this species is not well known to NF and CP, a Spokane woman has described "p'ustn" blades as resembling those of cat-tail (*Typha latifolia*); "p'ustn" is said to grow in dry sidehill areas (Nancy Flett, pers. comm.). There are three places in Sanpoil territory named after this grass: "klh-p'esp'ústn" (Bouchard and Kennedy 1979; Ray 1932:17), on the north side of the Columbia River, east from Swawilla Basin [Ray translates this as 'place where rye-grass grows', but elsewhere (1932:87) he identifies "pespesn'wlhtn" as rye grass, so in the former instance he may have been mistaken]; "p'up'stn" (Bouchard and Kennedy 1979; Ray 1932:21), the site of old Keller on the east side of the Sanpoil River [Ray translates this as 'grass growing along the creek']; and "k'lh-p'estníwa7s" (Bouchard and Kennedy 1979), an area of underground springs north and east from the mouth of Whitestone Creek. Possibly "p'ustn" is another species of *Elymus*, related to *E. cinereus*.

qūaqūaqūni'lp (Spier 1938:28) — This is described as a "long pine grass" on which the inner cambium collected from pines was laid (see also page 32). This term appears to be very similar to the name for lupines "kwikwikēnīlmīx".

q'wīlq'wīlsi (Lerman 1952-54: No. 42 in his collection) — This plant was used to make a medicine for arthritis. ML, NF, AL and LP did not recognize the name.

smetkwīlīna7 (ML; LA) — This is described as a plant having a bulb very similar to the corm of yellow avalanche lily (*Erythronium grandiflorum*), but flatter. It grows with this plant. LA states that it is identical to yellowbell (*Fritillaria pudica*) but about twice as high and grows only in the vicinity of Inchelium. It has two leaves and a reddish stalk. The bulbs were eaten like those of yellow avalanche lily and yellowbell. They were stored fresh in underground pits (ML; LA).

sp'ip'tl'm (ML only) (sp'itl'm 'bitter-root') lit. 'small bitter-root' — On one occasion ML identified a specimen of red Indian paintbrush (*Castilleja miniata*) as the plant called by this name, and on another, a specimen of spreading dogbane (*Apocynum androsaemifolium*). Yet another time he suggested owl's clover [*Orthocarpus tenuifolius* (Pursh) Benth]. The real identity is still questionable. ML states the flowers of "sp'ip'tl'm" are very similar to those of bitter-root. It blooms a month later than bitter-root and usually grows only in the mountains (ML). Possibly

this is another species of bitter-root, *Lewisia pygmaea* (Gray) Robins. The root of "sp'ip'tl'm" was used as a medicine for whooping cough. Four roots were steeped in hot water. This infusion was strained and a wad of larch gum as big as one's thumb was added and the mixture boiled until the gum dissolved. Small amounts of this liquid were given to a sick child (ML).

st'qtk'lūstin (Lerman 1952-54) — This plant was used to make a medicine for consumption; it was boiled in water, then drained. It was very bitter. It is very rare in the Douglas Lake area. Lerman (1952-54) gives no description. ML, AL, NF and LP had not heard of this name.

sunwənt'u'nłak" (Ray 1932:99) — This is a kind of "camas" (probably a species of *Lomatium*) which is smaller and more deeply rooted than "black" camas or *Lomatium canbyi* ('white camas'). The roots were eaten raw or cooked in pits but seldom steamed. They were gathered in April and May. ML, LP, NF and AL had not heard of this term.

sust k'ík'p'xwa7, or wist k'ík'p'xwa7 (ML only) lit. 'high elevation little nut' (see *Astragalus miser*) — ML originally applied this name to a specimen of water-leaf (*Hydrophyllum capitatum*), but later said it must apply to some other plant of high elevations. The "little nuts" were eaten (ML).

sxwatsk (WA only) lit. 'cut up (plural)' — This is an edible root which is gathered along with bitter-root. WA's mother used to gather the roots and he has eaten them, but he cannot recall what the plant looks like.

tkexkexán (ML only) (tkexán 'to follow along') lit. 'always following along' (so-called because the flowers 'follow the sun each day') — This plant was used as a love medicine (ML). ML identified it as a species of *Dodecatheon* from a photograph, but his description does not fit that of *Dodecatheon*. He says it has pale yellow blossoms, which are not beak-shaped, only two basal leaves, and a bulb (ML).

tsertsúr (HR only) [tsur 'syrup-like; oozy' (because the water becomes syrup-like after the plant is boiled in it)] — This plant grows in dry, sandy soil. It has light pink and white flowers clustered in the centre and the leaves are "soapy" in texture and are broad and flat and radiate outwards from the centre. They grow flat on the ground. Even when the flowers are open they are low to the ground. The plant forms mats as much as 30 centimetres (one foot) in diameter (see also *Epilobium paniculatum*). *Malva neglecta*?

t'ekt'ekīlhmeix (ML), or t'et'kīlhmeix (LP) (t'ak 'scattered or bunched grass or leaves') — ML collected a sample of this grass. It looks like a small species of *Carex*, but without flowers or fruits one cannot be certain. ML saw his grandmother dry it and mix it with bear grease. She rubbed this mixture on her hair, but ML did not know its purpose. LP heard "t'et'kīlhmeix" as a plant name, but knew nothing about its appearance or uses.

wist k'ík'p'xwa7 — see "sust k'ík'p'xwa7"

xaRxāRtEmä' (Spier 1938:166) — This is described as a weed, something like pigweed (*Chenopodium album*), which was mashed, dampened with water to make a slimy paste, and used as a poultice for wounds. ML, NF, AL and LP did not recognize the name.

Elmendorf (1935-36) describes a plant "something like wild morning glory" which was used by the Lakes people to make a charm. The plant, said to grow in matted beds from shoots, was gathered by a woman, whose husband had just taken another wife, to break up the second union and retain his love and affection for herself. She would take some possession of the new wife — something she had chewed, worn, or been in contact with — and sprinkle it with powder made from a single plant of this species which has been parched, powdered, mixed with vermilion until it looked like any other charm, and placed in a buckskin bag. She then burned this possession, together with the powder, the bags, and even the rocks used to grind the

powder, or set them all adrift on a stream. If this procedure was followed correctly the husband would soon break up with his second wife. Such a charm was called "p'a7awmín". The same herb was also dug along with its entire root complex to make a charm for holding a family group together. The whole plant was parched, powdered, and mixed, then a portion kept and the rest discarded. This was said to keep the family in accord and to prevent dissension.

Elmendorf (1935-36) refers to another plant — a sort of "milkweed" — having fuzzy, sticky, grey-green leaves which are shaped like a rat's tail and covered with white spines, a single root, and a single flower stem, which was used as a charm to keep newlyweds together. Two of the leaves were taken and stuck together, then parched and powdered. The wife (or occasionally the husband) kept the powder in a small bag. ("Usually it's the woman who has to look out for these things".)

Lerman (1952-54) describes a kind of black berry, of good size and "woolly", which grows high in the mountains. The bushes are 60 to 90 centimetres (two to three feet) high. The Northern Okanagan name was not remembered, but the old people said if you take the berries down to the creek, pound them up, and throw them into the air, saying that you want rain, it will rain in five to six hours.

Lerman (1952-54) mentions a large bush growing in the mountains with red berries and three big leaves together on each side. The roots were boiled to make a sweet, brown liquid, which was strained and drunk for many ailments, including cramps, rheumatism, and headaches. The drained liquid could be stored and heated when it was needed.

Lerman (1952-54) refers to a chokecherry-like bush with pear-shaped berries which was used to make a medicine for post-childbirth. The bark was removed and the wood scraped until it was pasty, then rubbed on a woman's stomach.

THE ROLE OF PLANTS IN OKANAGAN-COLVILLE CULTURE

FOOD

The Okanagan-Colville people have had access to a wide variety of plant foods including tree lichen, mushrooms, green shoots, tree cambium, roots and other underground parts, seeds, nuts, and berries. Spier (1938:12) speculates that vegetable foods formerly furnished from a third to half of the Southern Okanagan diet, with animal foods such as deer meat and salmon providing the remainder.

The most important plant foods in Northern and Similkameen Okanagan territory were saskatoon berries and bitter-root (ST; HR), although in the Lakes country huckleberries replaced saskatoons (serviceberries) in importance and bitter-roots were obtained only through trade (Teit 1930:237; Elmendorf 1935-36), and in Sanpoil-Nespelem territory "black" camas and "white camas" were considered more important than bitter-root (Ray 1932:98; NF; CP).

Saskatoons were so important in the Northern and Similkameen Okanagan areas that at least eight varieties are still distinguished today, each with its own characteristic habitat, growth form, leaf and bark features, and berry size, shape, and taste. Some other commonly utilized fruits throughout Okanagan-Colville territory include: huckleberries and blueberries, wild gooseberries, chokecherries, strawberries, thimbleberries, wild raspberries, blackcaps, thornberries, and soapberries.

Bitter-root was regarded in Northern Okanagan cosmology as "king" of all the roots (ST). Other underground plant foods were: wild onions; the bulbs of "black", or blue camas (in the southern sections of Okanagan-Colville territory); the corms of yellow avalanche lily; the bulbs of tiger lily; various species of "biscuit root", or *Lomatium*; "Indian carrot", or wild caraway; balsamroot; and "Indian potato", or spring beauty.

Edible "greens" utilized by the Okanagan-Colville included: "Indian rhubarb", or cow parsnip; chocolate tips; cactus; balsamroot; and stinging nettle. These foods were supplemented by the cambium from ponderosa and lodgepole pine, and by black tree lichen, pinenuts, hazelnuts, balsamroot seeds, and "cottonwood" and other mushrooms.

Each spring, "first-roots" and "first-fruits" ceremonies were held throughout Okanagan-Colville territory to celebrate the arrival of bitter-root, saskatoon, and other crops. Such ceremonies are still held annually on the Colville Indian Reservation (NF; CP). Apparently the Lakes people held a ceremony for the "fruitful season" in which the women danced from morning until sunset and the men cooked and served them with food. All the food had to be eaten or burned; if any was left it was believed the herbs, roots, and berries would not bear in the coming season (Elmendorf 1935-36).

The gathering of plant foods was usually a job of the women, although sometimes entire families would take part in a large harvest. In the Southern Okanagan area, when women went out to gather plant foods, not one of them would officially take the lead, although one with more "power" might be more successful than the others (Spier 1938:25). However, Ray (1932:98) reports that for the Sanpoil-Nespelem, the women of each root-gathering group (which consisted of four or five families travelling together) recognized one old lady of their group as a leader. She selected which areas were to be dug each day. The digging grounds were not considered either village or group property (Ray 1932:110). Both Spier (1938:25) and Ray (1932:98) point out that although all the women worked together gathering plant foods, there was no division of the harvest afterwards, each was entitled only to what she had gathered.

Most of the Sanpoil population moved each spring from their winter villages to the vast open area of the "Big Bend" south of the Columbia River (NF; CP); Ray (1932:97) has estimated this area to be over 400,000 hectares (one million acres). Here they set up temporary camps and travelled around to find the best spots for digging roots, remaining here for 30 to 40 days, beginning in early April. Each woman dug over about half an acre a day (Ray 1932:98). The Big Bend area was also utilized by others, such as the Spokane and Moses people (NF; CP).

As early as March, the food-gathering process began as the first shoots of chocolate tips and balsamroot were sought. In April, May, and June, yellow avalanche lily corms, bitter-roots, onions, and other "roots" were dug and tree cambium was harvested. From June through October, various types of fruits were gathered, beginning with strawberries, saskatoons, and soapberries, and ending with high-bush cranberries and blue elderberries. In late summer and fall, black tree lichen was usually collected (although it was obtainable throughout the year) and mushrooms and pinenuts were gathered.

Many fruits, as well as "greens" and tree cambium, were eaten raw and fresh. Some types of berries, including blue elderberries, wild raspberries, Oregon grapes, and wild gooseberries, were crushed with the hands to make juice, which could be kept from day to day and was heated in a cooking basket with hot rocks before being drunk (Elmendorf 1935-36).

"Roots", tree lichen and mushrooms were usually cooked before being eaten. Some roots, including bitter-root, "Indian potatoes", and yellow avalanche lily corms, were cooked by steaming with a small amount of water in a birch-bark or split cedar-root basket. Red hot rocks were used to generate the steam, and wild rose leaves or other vegetation were placed in the bottom to prevent the containers from being burned.

Another cooking method, used for black tree lichen, onions, camas bulbs and other "roots", as well as for many animal foods, was pit-cooking. This is a steaming process employing a large pit lined with round volcanic rocks which were heated to make them white hot. A layer of dirt was spread over the rocks. Above the dirt was placed a layer of fern fronds, skunk cabbage leaves, damp pine needles, "timbergrass", or other vegetation. The food to be cooked was then placed on this vegetation and covered by another layer of vegetation and more dirt. One or more upright sticks

were left in the pit while it was being filled. These were removed to create passages for water to be poured down to generate steam. These passages were plugged immediately and the food was left to steam-cook overnight or longer. Another fire was usually kindled on top of the dirt piled in the pit to hasten the cooking process. In the morning the food was taken out and eaten or prepared for storage. Two or more different foods, such as onions and black tree lichen, were frequently cooked together in the steaming pit to flavour a bland food with a stronger-tasting one (NF; CP). Pit-cooking was taken seriously, and certain procedures had to be followed for successful results. For example, men were never allowed near the cooking pit when it was being used, and women, during their menstrual periods, were also forbidden in the area. The women tending the pit had to observe certain rules of cleanliness and fasting as well (Elmendorf 1935-36) (for further details on steam-pit cooking, see under black tree lichen).

Despite the seasonality of most plant foods, many of them could be enjoyed at other times of the year through the use of various storage processes. Fresh fruits, for example, were often dried loosely, like raisins, or were mashed and dried into cakes. Especially in the Northern and Similkameen Okanagan areas, certain varieties of saskatoons were popular for drying and were a common trade item. Roots were also dried, either raw or after being pit-cooked. Bitter-roots were simply spread out in the sun, while others, such as yellow avalanche lily corms, were sometimes threaded on long strings and hung up to dry. Mushrooms were also dried.

Dried foods were strung together and hung up for storage or were stored in woven bags made of tule, Indian hemp fibre, willow bark, and other fibres, or in large containers made of cottonwood bark. These food containers were kept inside or were stored outside in raised caches or underground pits. Fresh roots and even fresh berries could also be stored for considerable periods of time in such caches.

A common type of raised food cache consisted of an A-shaped structure built about 1.5 to 2 metres (five to seven feet) off the ground, covered with tule mats, and tied together with rope made of willow bark. Each support pole was circled with a piece of cottonwood or aspen bark in an inverted saucer shape to keep rodents and other animals from climbing the poles. A ladder was used to gain entrance. Both plant and animal foods, fresh or dried, could be stored in this way (HR).

Another type of cache was made with a single pole, placed in the ground at a slight angle and ringed, halfway up, with a piece of cottonwood bark to protect the supplies from rodents.

Underground storage was particularly useful for fresh roots, such as "Indian carrots" and "Indian potatoes", which could not be frozen. A hole was dug about one to two metres (four to six feet) deep and lined with cottonwood bark, to keep out rodents, and with pine needles and tule mats as insulation. A thick layer of dirt was placed overtop. In winter the hole could be opened with a wooden pick or by building a fire over the frozen dirt (ML).

Dried foods could be eaten dry or could be reconstituted by soaking for several hours, or by boiling. They could be used alone, but were often mixed with other foods. For example, dried saskatoons and bitter-roots were frequently mixed together, and saskatoons were commonly added to soups and stews of deer meat or salmon.

Dehydration of plant foods made their widespread use as trading goods possible, both among the Okanagan-Colville themselves and between them and neighbouring groups, such as the Thompson, Shuswap and Spokane. Dried bitter-roots, camas bulbs, the roots of various species of *Lomatium*, saskatoons, gooseberries, soapberries, and huckleberries were important commercial products and were responsible for much material and cultural interchange in Okanagan-Colville territory.

Aside from plant foods, teas, tobaccos, and flavourings were also used by the Okanagan-Colville people. Labrador or Hudson's Bay tea was a common beverage. The Okanagan-Colville

did not practice cultivation before the coming of Europeans, but they did use a species of wild tobacco for smoking, and also smoked the leaves of kinnikinnick. Some species of *Lomatium* were used as flavourings, as were tiger lily and wild onions.

With the coming of Europeans many plants were introduced into Okanagan-Colville country, some as cultivated foods, and others as weeds. Many of the food plants attained widespread popularity and have been given names in the Okanagan-Colville language. These include: potatoes, wheat, cabbage, beets, turnips, melons, squash, pumpkins, and tomatoes. Some introduced species are named after native, or wild, counterparts. Thus, cultivated strawberries, gooseberries, raspberries and onions are called by the same name as the wild ones. Rhubarb is named after cow parsnip, carrots after wild caraway, and grapes after saskatoon berries.

Today many wild food plants are still being used by the Okanagan-Colville people, especially those of the older generation. Some families still go out to dig bitter-root and camas, and many people still pick berries in the summer, particularly saskatoons and mountain huckleberries. Canning, jamming, and freezing are the most common methods of preserving wild foods nowadays. Sugar is commonly used as a sweetener for many foods. The old methods of cooking are seldom used; kettles and pots have taken the place of steaming pits and birch-bark baskets. Coffee and tea have replaced wild beverages, and commercial tobacco is now used almost universally instead of wild tobacco and kinnikinnick.

TECHNOLOGY

Many of the items used in the daily lives of the Okanagan-Colville were manufactured from plant products. Tools, canoes, mats, bags, cooking and storage containers, fish-nets, and even some clothing, were all made from plant materials. In addition, plants were used for fuel, fish and arrow poisons, insect repellents, colouring agents, cements, abrasives, and linings for steaming pits and caches for storing roots.

Digging sticks, spear shafts, teepee pegs, and other items requiring a great deal of strength and flexibility were made from oceanspray (or "ironwood"), mock-orange, or sometimes saskatoon. These, and juniper, were also used to make bows and arrows. The wood of Rocky Mountain maple was used for such items as drum hoops, snowshoes, cradle supports, and fire tongs because it was easily molded after being heated and steamed. Branches of willow and "red willow", and even the wood of red cedar, were also employed. Dugout canoes were sometimes made, using ponderosa pine, cedar, cottonwood, or grand fir. The Lakes people, at least, made canoes out of the bark of white pine. Birch bark was used for making watertight storage and cooking containers and baby cradles. Another popular type of basket was woven from the roots of red cedar and some other trees. These were also watertight and were used for cooking, gathering, and food storage. Large storage casks, especially for underground caches, were made from cottonwood bark.

Dried foods were frequently stored in bags made of tule, Indian hemp fibre, or some other fibrous material, such as the bark of silverberry, clematis, or willow. These materials, as well as cat-tail and various sedges, grasses, and rushes, were used to weave mats, the larger ones suitable for making summer dwellings and insulating winter dwellings, and the smaller ones for drying foods on and eating from. Indian hemp fibre was the main material for making fish-nets and twine, and it and other plant fibres were even used to make clothing.

Fires were essential, not only for warmth, but for cooking and smoking food and for smoking hides. In the early days they were kindled from friction, by rapidly "drilling" a dry stick, usually from the pitchy top of a ponderosa pine or a cottonwood root, into a "hearth" made from cottonwood. Shredded sagebrush bark and other dry, shredded materials were used as tinder. Almost any wood was suitable as fuel, but alder was considered best for cooking and smoking deer meat. White pine, willow, and sage were used for smoking hides.

A fish poison was made from the roots of chocolate tips, and arrow poisons were made from the fruiting boughs of juniper and from stinging nettle roots, death camas bulbs and water hemlock. Smudge fires, to ward off flies and mosquitoes, were made with various aromatic plants such as sagebrushes.

Several plants were used in making dyes, paints and stains for face-painting and decorating wood and baskets. Red colouring was made from larch pitch and from alder (both bark and wood), yellow from cottonwood buds, wolf lichen, and Oregon grape root, and blue from the flowers of larkspur and blue penstemon. Baskets were also decorated by imbrication with bitter cherry bark and bear grass.

Resin from the bud scales of cottonwood and from ponderosa pine provided an effective cement for glueing arrowheads onto shafts, and for fastening spearheads, pipestems, and coverings on bows. The rough, silicon-impregnated stems of horsetail were used as an abrasive, like sandpaper, for smoothing wooden surfaces. The soft fluff from cottonwood catkins and the fruiting heads of cat-tail, was used for dressing wounds, diapers, and sanitary napkins, and one type of sedge was stuffed into moccasins in winter to insulate the feet. The boughs of Douglas-fir and other evergreens were used as bedding, and skunk cabbage leaves, fern fronds, "timbergrass", pine needles, and branches of wild rose were placed in steaming pits, cooking baskets, and root-storage pits to protect the food within.

MEDICINE

In Okanagan-Colville culture, traditional curing was and still is of two general types. The first involves the use of various herbs. It is practised only by a very few knowledgeable people; they are older men and women who have learned their skills from preceding generations of old people.

The second type of curing is spiritual. It is closely bound with "power", and is usually practised only by shamans ("Indian doctors"). Although some plants are occasionally employed in spiritual curing as charms and purifiers, the methods used most often are ritualistic and involve the singing of special "doctoring" songs and the use of sucking and blowing to "draw out" the sickness.

Many illnesses are treated by both herbal and spiritual means; often the treatments are inseparable. Spiritual curing, however, is applied in cases of jinxing, bad luck, failure in love, poor success in hunting, and in protecting against evil spirits and ghosts, particularly of recently-deceased people.

Even with herbal curing, and especially with spiritual curing, both patient and curer have to take great care to guard the medicines from bad and enfeebling influences, such as menstruating women. Many medicines are taken in complete secrecy, late at night or early in the morning. Some are considered more "sensitive" than others. An infusion of devil's club, for example, is said to lose its effectiveness as a medicine completely if so much as the shadow of another person passes over it. Medicines of all types are still treated with reverence and respect. Some are spoken to as they are being gathered and prepared and their help in curing is requested. Thus, for the Okanagan-Colville people, even the simplest of cures is not entirely a physical or chemical phenomenon, but is at least partly spiritual and psychological.

Formerly almost every illness and affliction known to the Okanagan-Colville had some means of treatment involving plants and plant products. Which part of a plant was used — leaves, fruit, stems, bark, roots, or pitch — depended on the type of medicine being made and the time of year.

Herbal medicines were administered in several ways, according to the type of plant used and the ailment to be treated. Skin sores, mouth sores, infections, cuts, bruises, and toothaches were usually treated by the application of wet poultices or dry powders, or by washing the affected area with a fairly strong solution of the herb. Scalp conditions and eye troubles were also treated by washing with herbal solutions. Relief from sore, aching muscles resulting from rheumatism or

arthritis was obtained by soaking the affected limbs in a warm decoction of one or more medicinal herbs or by the use of "counter-irritants" such as buttercup and stinging nettle. Medicines for healing some types of sores could be applied externally as well as administered internally as infusions or decoctions.

Almost all internal ailments, including colds, fevers, tuberculosis, digestive troubles, kidney and bladder disorders, and other unspecified complaints, were treated with infusions or decoctions of plant medicines. Contraceptives, tonics, and blood purifiers were also taken as liquid solutions.

Cleansing and ritualistic purification as well as treatment of some muscular disorders was accomplished by means of steambathing in a small, dome-shaped sweathouse. The sweathouse was highly important in traditional Okanagan-Colville life and is still used to some extent today. Its construction and use are governed by strict rules. It is always built beside a creek. It is usually 1.5 to 2.5 metres (five to eight feet) in diameter, with a frame of willow, saskatoon, or other light branches, and is covered with boughs and, usually, sod. Its entrance is towards the east and the usual time for sweatbathing is at dawn or sunset. The dirt floor is covered with boughs, usually of Douglas-fir. Round, volcanic rocks are heated in a fire outside, then placed in a small, shallow pit dug at one side of the interior. The entrance is sealed with a tule mat or blanket, and water is sprinkled over the rocks to generate steam. The bather usually stays in the dense, hot steam for about 15 minutes at a time, then jumps into the nearby creek to cool off before re-entering the sweathouse.

Steambathing is often accompanied by drinking herbal tonics to promote internal cleansing and by rubbing the body with fir boughs. Outside the sweathouse, the skin is washed with various plant solutions and the hair is rinsed in a solution made from the branches of red cedar and wild rose. Aromatic plants such as sagebrush and subalpine fir are often placed on the hot rocks to yield cleansing vapours inside the sweathouse.

About 130 of the approximately 260 species of plants known to the Okanagan-Colville were used as medicines; this is in agreement with Ray's (1932:215) estimate that about 50% of the species known to the Sanpoil-Nespelem were used medicinally. Some plants were used to treat many different ailments while others were employed in only one way. Examples of herbs used as poultices and washes for cuts, bruises, and skin infections are: horsetail, the pitch of ponderosa pine, sumac, chocolate tips, alum root, rattlesnake plantain, waxberry, thimbleberry and cactus. Healing powders were made from black tree lichen, the spores of puffballs, the needles of subalpine fir, and the leaves of balsamroot, buckbrush and strawberry. Eye medicines included: horsetail, pine pitch, shooting star, yarrow, Oregon grape, trembling aspen, cactus and waxberry. Yarrow, and purple aster plants, western sweet cicely roots, and water lily stems were used for toothaches.

Rinses for the hair and scalp were made from red cedar, cow parsnip, chokecherry, "red willow", clematis and yarrow. Red cedar, sagebrush, tree fungus, Indian hellebore and stinging nettle were used to treat arthritis and rheumatism. Colds, fevers and consumption were treated with such aromatic herbs as juniper, subalpine fir pitch, Canby's lovage, "Indian celery", desert parsley, devil's club, yarrow, wormwood, sagebrush and mint.

Remedies for digestive ailments such as ulcers, diarrhoea, and constipation were made from tree fungus, pine cambium, subalpine fir pitch, scarlet gilia, yarrow, soapberry, cascara, and raspberry. Oregon grape, kinnikinnick, and Labrador tea were used for kidney disorders, and horsetail, subalpine fir pitch, rye grass, sumac, brown-eyed Susan, pinedrops, and cottonwood were used to treat venereal disease. The most important medicines for childbirth were "red willow", "grey" willow, and alder. Contraceptives, temporary or permanent, were made from pine pitch, soapberry, clematis, saskatoon, "red willow", and false box.

Tonics could be taken at any time, but they were most often drunk as a part of the sweathouse ritual and for "changing of the blood" in March and November. Sweathouse tonics were made from juniper, snowbrush, red cedar, Douglas-fir, and wild rose. Tonics which were said to make the

blood become thicker in winter and thinner in summer, to better enable the body to withstand extremes in temperature, were made from larch (tamarack), Oregon grape, chokecherry, alumroot, red twinberry, saskatoon, or various combinations of these plants.

Although these medicines are written about in the past tense, many of them are still used, particularly by the older generation. A number of Okanagan-Colville people still have an extremely impressive knowledge of the subject. All our informants have expressed concern that these medicines be recorded for the benefit of future generations, both Indian and non-Indian, and are very interested in the chemical properties of the herbs which make them effective.

RELIGION

The significance of plants in Okanagan-Colville religion is reflected in the attitude towards medicinal plants as described in the previous section. All plants, particularly those important as foods and medicines, were regarded with the utmost respect and reverence. Like animals, they were believed to have souls or spirits, and in the early days of Okanagan-Colville mythology they were attributed human features. Many Okanagan-Colville legends refer to plants in their original state and describe the circumstances of their transformation to their present form. Thus, black tree lichen was originally Coyote's hair, and clematis the braids of a maiden owl. Tamarack was a man-eating monster.

The present status of such plants is believed to be mainly the result of their past. Black tree lichen is used as a food today because Coyote decreed it, and tamarack is now used medicinally because Coyote, on transforming the people-eating monster, ordered it to be a tree which people could use as a medicine.

The "first-fruits" and "first-roots" ceremonies held in the spring for saskatoon berries, bitter-roots, "white camas", and some other plants, are also indicative of the belief in the supernatural powers of plants. These ceremonies were held, and are still held, to pay tribute to the spirits of the foods and to thank them for the return of the crop. They were carried out with much ritual and formality. Ray (1932:97) records that among the Sanpoil four or five young women were chosen to harvest the first crop, and no one else was allowed to take part in the harvest until after a ceremony consisting of a large feast during which each person present spoke a few words, expressing a desire for a good harvest. Any violation of the ritual was believed to bring bad luck and a meager harvest.

The belief in magical or supernatural properties of plants is also reflected in their use as protective agents against ghosts, evil spirits, and jinxes, and as love and good luck charms. They can also be used in a negative way, to cast spells and "jinx" people, giving them bad luck or even bringing about their death. Plants used for protection against ghosts and bad spirits include juniper, wild rose, and Oregon grape. Stinging nettle, soapberry, and raspberry are effective in combating "witchcraft", and Canby's lovage and red columbine are used as good luck charms. Love potions are made from three-flowered avens and mountain valerian, and stoneseed plants are used to "call the rain" during a drought. Tiger lily bulbs, Indian hellebore, bog orchid, and the "heart" of bitter-root can be used to jinx people, but only if the proper spells are known. "Witchcraft" and jinxing, and the measures taken to combat them, are known in the Okanagan-Colville language as "plhax" and are still practised, to a limited extent.

Often charms made from herbs and other items were carried about, in small buckskin pouches, in the form of a powder, made by drying the plant and grinding it in a rock depression with a stone pestle. Such charms, worn around the neck or waist of a woman, for example, were said to protect her house and possessions from being burned, retain the affection of her husband or her son-in-law, and generally bring her luck. She might secretly sprinkle some powder on her husband's coat or in

his moccasin, or mix it with vermilion paint and put a speck on her face or on her children's hair or the backs of their ears to ensure his faithfulness and devotion. Such actions had to be done under the strictest secrecy or they would not be effective (Elmendorf 1935-36).

According to one account of the Northern Okanagan world view, the plants and animals of mythical times are classified into several different domains, each of which has a "Chief". Coyote is the chief of all the domains, and over him is the Great Chief, "sweathouse". The animal domains include: "Fish" (chief — Steelhead Trout); "Those that fly" (chief — Golden Eagle); "Those that walk with paws" (chief — Cougar); "Those that walk with hooves" (chief — a special celibate buck mule deer); "Those that crawl on the surface" (including worms, frogs, snakes) (chief — a special kind of small rattlesnake); and "Those without blood" (insects and spiders) (chief not recalled). Even rocks and minerals have a domain, whose chief was Black Flint. Plant domains include: "Bushes and leafy trees" (chief — Rocky Mountain Maple); "Trees with needles" (chief — "Balsam" or Subalpine Fir); "Grasses" (chief — Bunchgrass); "Roots" (chief — Bitter-root); and "Berries" (chief — Mountain Huckleberry) (ST).

LANGUAGE

The importance of plants in all aspects of Okanagan-Colville culture is reflected in the large botanical vocabulary in the Okanagan-Colville language. There are about 260 species of plants with Okanagan-Colville names and many of these have more than one term associated with them, relating to different varieties or different parts of the plant. For example, in the Northern and Similkameen Okanagan areas, there are nine names for saskatoon berries — one general, and eight for individual varieties. Similarly, there are four terms for chokecherries — one general and three specific. Throughout Okanagan-Colville territory, four linguistically unrelated terms apply to balsamroot — one for the root, one for the leaves, one for the young shoots, and one for the seeds. Flat-topped spiraea has two names — one for the flowering tops and one for vegetative ones. Additionally, in the case of many important economic plants, there are special terms referring to their gathering and preparation (cf. black tree lichen and Indian hemp).

Many geographical features — rivers, mountains, valleys, and sidehills — are named after particular plants that grow there. Places with names such as 'place of juniper', 'place of Indian hemp', 'having big sagebrush on the sidehill', 'dried up fir branches', and 'having Labrador tea' are found throughout Okanagan-Colville territory.

Seasons are also commonly named after plants. Late February and early March, for example, is called 'buttercup time', and the approximate month of July is named after chokecherries by the Northern Okanagan, while in the Vernon area, August is called 'red thornberry time' (Lerman 1952-54).

As might be expected, many plant names in the Okanagan-Colville language are similar or identical to those in other Interior Salish languages (cf. Turner 1973; Turner 1974; Palmer 1975). For example, the name for Rocky Mountain juniper, "punlhp", is common to the Lillooet, Thompson, Shuswap and Okanagan-Colville languages, and the name for cottonwood, "mulx", also occurs in Shuswap, where it has a general meaning of 'wood' or 'stick' as well as a specific one.

Many, but not all, plant names contain the lexical suffixes "-ilhp" ('tree, or plant'), "-ilha7p" ('little tree, or little plant') or "-ilhmeix" ('bush'). In the case of fruit-bearing plants, the suffix is usually added onto the name of the fruit to give the name of the bush or tree itself. For example, high-bush cranberries are called "nmáktu7", and the high-bush cranberry bush is "nmákt7ilhp". Similarly, kinnikinnick berries are "skwlis" and the kinnikinnick plant is "skweisilhmeix". Sometimes reduplication occurs when the suffix is added (cf. "red willow" berries: stiktsxw; "red willow" bush: stektétsxwílhp).

The criteria for naming plants in the Okanagan-Colville language are as varied as the plants themselves. Some plants are simply named after characteristic features of growth, such as form, shape, colour, or texture. Thus, fleabane is called 'bunched at the top' and orange honeysuckle is called 'tangled around itself'. Wild ginger is known as 'heart-shaped plant', referring to the leaves, and red twinberries are called 'bar-bell shaped', because they are double. Wolf lichen, stonecrop, yellow violet, and pumpkin have names referring to the colour yellow (actually translates as 'yellow/green'). Larch, beets, and columbine are named from 'red'. Lupine, blue violet and others are named after blue ('blue/green'), and rabbitbrush and willow after grey. Cascara is called 'dark-coloured wood'. Finally, dwarf juniper and Engelmann spruce are named after their prickly texture, squash from the bony surface of the fruit, pasture wormwood from its cottony leaves, and burweed from its sticky seeds.

Other plants, notably mosses and fungi, are named after their habitat or substrate. Still others are named after special qualities and traits. Sumac is called 'bleeding plant' after the stem latex, soapberries are named from their ability to foam, and aspen is called 'leaves-always-shaking tree'. The name for stinging nettle means 'stinging hot', that of poison ivy is 'beginning to get a rash' and of death camas is 'causing twitching'. Sometimes the resemblance of a plant to a certain object is referred to, as in the names 'little tooth' for yellowbell, and 'lost arrow' for pinedrops. Many plant names allude to animals or parts of animals. Examples are: 'early sockeye salmon's eye' for phlox; 'spider's plant' for chaenactis; 'curlew's beak' for shooting star; 'crow's beak' for larkspur; 'blue grouse's foot' for cinquefoil; 'crow's ear-ring' for mertensia; 'black bear's eye' for black twinberry; 'frog leaves' for broad-leaved plantain; 'rattlesnake's tail' for scarlet gilia; and 'chipmunk's little tail' for yarrow.

Several plants are named after their taste: Oregon grapes for their sour taste, blue elderberries and mountain-ash berries for their tartness, and swamp gooseberry for its menthol-like flavour. Other plant names reflect the plant's utilization. White pine is called 'canoe wood' and brown-eyed Susan is 'painting instrument', referring to its use as a medicine. Locoweed is called 'wipes off the inner side' because it was used to wipe off the inner bark of pine when the cambium was being harvested. Stoneseed is named 'instrument for beating on wood' after its use as a rain charm, and the name for wild buckwheat is 'hooking with each other' after a game that was played with the stems. The name for Indian hemp is synonymous with the term for twine, and the widespread use of the pitch of subalpine fir as a medicine is reflected in its name, derived from the general word for medicine. Similarly, the name for Canby's lovage, "xásxes" 'always good' reflects the popularity of this plant as a charm and as a medicine.

Finally, many plants are named from their resemblance to other plants, which are usually better known and culturally more important. For example, foxtail barley is named after bunchgrass. Brome grass is called 'little oats' and false boxwood is 'little kinnikinnick'. The name for spreading dogbane is 'resembling Indian hemp'. Milkweed is often called 'Coyote's Indian hemp', while false Labrador tea is called 'friend/cousin of (real) Labrador tea'.

Most plant names in the Okanagan-Colville language, other than general terms such as for mosses, tree fungi, mushrooms, and weeds, reflect a one-to-one correspondence of Okanagan-Colville folk categories with botanical species. In some cases, as with saskatoons and chokecherries, Okanagan-Colville varietal categories demonstrate a greater degree of perception of botanical difference than do modern botanical categories.

Like other groups in western North America, the Okanagan-Colville people sometimes categorize plants as "male" or "female". Plants having flowers or fruit are considered to be "male", while those having only leaves are "female". With some edible roots, such as desert parsley, only the "female" root is eaten; the "male" root is too strong.

General Botanical Terms in the Okanagan-Colville Language

The terms are listed in alphabetical order of their English equivalents. Unless otherwise specified, the terms were given by ST and ML.

Bark — k'i7lilxw

Bark, inner, when rotten — snkwitimínk (ML; LA) (especially refers to red cedar)

Berry, fruit — alhk (suffix); -us (suffix) (also means 'face/eye')

Berry cakes, dried — snt'et'elhúla7xw (t'ham 'to make something pasty') lit. 'pasty on the ground' (also applies to root cakes — ML)

Berries, to dry — sxewíltm

Berries, half ripe — skwalsm

Berries, to pick — skw'íwalhk̄m, or skw'liw̄m

Bough, conifer — kwiltsn (especially refers to Douglas-fir)

Boughs, evergreen, dried up — ts'its'áya (ML; ST; HR) [also the name of a rocky area on the Hope-Princeton Highway near Allison Lake. People passing this spot would pile up fir branches and make a wish for good luck (HR)].

Branch, or limb — stkeikeixmíkstñ (cf. 'knot in a tree')

Branch, young branches of saskatoons, willow and other species when twisted into a type of rope — syílu7

Brooming caused by mistletoe or phytogenesis on fir and other conifers — t'eklhínekst (ST; HR) (t'ak 'scattered or bunched grass or leaves') lit. 'scattered, bushy all over the branches'; or kt'ap7úskst (LP; NF). These bushy branches were boiled in water to make a hair wash for girls to give them long, thick hair (ST; HR)

Brooming at the top of a tree — tsnt'ek-kín (ST)

Brooming on any branch — kt'eklhíkst (ST)

Bush — st'ekwt'ák̄w; -ilhm̄ix (suffix)

Bush, female — tkhlmelxwílm̄ix (tkhlm̄ilexw 'woman'; -ilhm̄ix 'bush')

Bush, male — skeltemxwílm̄ix (skeltem̄ixw 'man'; -ilhm̄ix 'bush')

Cambium, of any tree — ts'exwiyúsilxw (ML; LA; WA) [ts'axw 'thin, water-like layer' (cf. also "ts'ixwi7", 'edible cambium in ponderosa pine'); -ilxw 'outer covering'] lit. 'watery outer covering'

Cone, of any conifer — sts'ets'ák'a7

Flower — sts'e7ák̄w

Grass, hay, or grass-like plant — swupúla7xw (wap 'hair or growth'; -úla7xw 'ground') lit. 'ground hair' or 'ground growth'

Herb, female — tkhlmelxwúps (tkhlm̄ilexw 'woman'; -ups 'tail end')

Herb, male — skeltemxwúps (skeltem̄ixw 'man'; -ups 'tail end')

Knot in a tree — sntkeikeixmíkstñ (cf. 'branch, or limb')

Leaf — patsklh (note: the time from the middle of May to early June is called petsklhtán 'causing leaves')

Needle, of a conifer — k'áma7

Nut — k'íp'xwa7 (applies generally to any nut and specifically to hazelnut)

Pappus, or "parachutes" (e.g. of cottonwood or dandelion) — skwalhkn (skwalht 'cotton-like'; -kin 'top') lit. 'cotton-like top'

Pitch — t'its'

Pitchwood — stl'etl'úkw'a7
 Plant — -ilhp (suffix) (cf. 'tree' suffix)
 Plant, aquatic — nkweskwespítkw (kwas 'web-like') lit. 'web-like in the water' (applies to any moss-like plant growing underwater); or snpllitkw (pelál 'to grow') lit. 'growing in the water' (applies to any aquatic plant)
 Root — sagxwíp
 Roots, to dig — sewíts'm
 Seed — sts'álken
 Shoot, or sprout, after it has emerged from the ground — spellúps (pelál 'to grow'; -ups 'tail end') lit. 'growing at tail end'
 Sliver — sxwixwáy (cf. *Lithospermum ruderae*, *Phacelia linearis*)
 Stem — ts'elmxáñ
 Stump — nxwuxwts'ús
 Timber — ts'elts'ál
 Tree — -ilhp (suffix) (cf. 'plant' suffix)
 Tree (standing) — tsegíp (ST; HR); or tsiyíp (ML; LA)
 Tree, dead — k'íya7
 Tree, fallen — wuláx
 Tree, female — (s)tklhmélxwálek (tklhmélexw 'woman'; -álek 'wood')
 Tree, male — skeltemxwálek (skeltemíxw 'man'; -álek 'wood')
 Tree, top of — snk'amkn
 Underbrush — nsts'its'u7; or nk'ek'súla7xw
 Vegetation, used in pit-cooking (e.g. "timbergrass", skunk cabbage leaves) — nt'ektsápsk'elstn (ML; WA; LA); or t'kápsk'elstn (ML; WA; AL; LA) (both from t'ak 'scattered or bunched grass or leaves'; -ápsk'elstn 'bottom of pit') lit. 'scattered on the bottom of the pit'
 Weed, general — snpelliws (ST) (pelál 'to grow'; -iws 'middle') lit. 'grows amidst'
 Wood — selíp; or sxexts'í7; -álek (suffix)
 Wood, rotten — yákw'i7

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Appendix I.

A Key to the Practical Writing System Used for Okanagan-Colville Words in this Report

The following is a key to the practical phonemic writing system used to transcribe Okanagan-Colville terms in this study. It is adapted from Bouchard and Pierre (1973). The equivalent symbol in the International Phonetic Alphabet is given in square brackets following each practical phonemic symbol:

1. A glottal stop [ʔ] is written here as the number 7.
2. An accent ['] marks the vowel that receives primary stress, in all words containing two vowels or more.
3. An apostrophe following a consonant (e.g. k') indicates a glottalized or "strongly exploded" sound. An apostrophe above a consonant (e.g. ṅ) indicates a glottalized resonant or "weakly exploded" sound.
4. Underlining of a consonant (e.g. k) indicates a sound which is produced "at the back of the throat", at the same position as the "ch" in German "Bach" is pronounced, or even further back. These "back" sounds are technically known as uvulars and pharyngeals.
5. A "w" beside a consonant (e.g. kw) indicates a sound which is produced "with rounded lips" or labialized.
6. Four phonemically-distinct vowels are recognized: a, e, i, and u.

The practical phonemic symbols are listed here in "alphabetical" order:

- a [ae], [a] — varies from the vowel sound of English "bat", to that of "father".
- e [ə] [Λ], [ʌ] — varies from the vowel sound of English "earth", to that of "but", to that of "put".
- gw — like Okanagan-Colville "g", but produced with rounded lips (does not occur in the Colville, Sanpoil-Nespelem or Lakes dialects).
- g [ʎ] — a "friction" sound, made with the tongue in the same position as for Okanagan-Colville "k", but with "voicing" (does not occur in the Colville, Sanpoil-Nespelem or Lakes dialects).
- ḡ [ʎ'] — like Okanagan-Colville "g", but pronounced with a slight "catch" in the throat (does not occur in the Colville, Sanpoil-Nespelem or Lakes dialects).
- ḡ [ŋ] — like Okanagan-Colville "g", but produced further back in the throat.
- ḡ [ŋ'] — like Okanagan-Colville "g" but pronounced with a slight "catch" in the throat.
- gw [ŋ°] — like Okanagan-Colville "g", but produced with rounded lips.
- ḡw [ŋ°'] — like Okanagan-Colville "gw", but pronounced with a slight "catch" in the throat.
- h [h] — as in English.
- i [i], [ei], [I] — varies from the vowel sound of English "beat" to that of "bait" to that of "bit".
- k [k] — as in English.
- k' [k'] — pronounced like "k", but strongly exploded.
- k [q] — pronounced like "k", but further back in the throat.
- k' [q'] — pronounced like "k", but strongly exploded.
- kw [k°] — pronounced like "k", but with rounded lips.
- kw' [k°'] — pronounced like "kw", but strongly exploded.
- kw [q°] — pronounced like "k", but with rounded lips.
- kw' [q°'] — pronounced like "kw", but strongly exploded.
- l [l] — as in English.
- ḷ [l'] — pronounced like "l", but with a slight "catch" in the throat.
- lh [ɬ] — similar to the "thl" sound of English "athlete".
- m [m] — as in English.
- ṁ [m'] — pronounced like "m", but with a slight "catch" in the throat.
- n [n] — as in English.
- ṅ [n'] — pronounced like "n", but with a slight "catch" in the throat.
- o [ɔ] — pronounced like the vowel sound of English "bond"; very rare — occurs only in loan words.
- p [p] — as in English.
- p' [p'] — pronounced like "p", but strongly exploded.
- r [ɹ] — similar to the English "r" sound, but with distinct "trill".
- ṛ [ɹ'] — pronounced like "r", but with a slight "catch" in the throat.
- s [s], [š] — pronounced most often as in English "s", but sometimes as in English "sh".
- t [t] — as in English.
- t' [t'] — pronounced like "t", but strongly exploded.
- tl' [ɬ'] — Okanagan-Colville "t" pronounced together with Okanagan-Colville "lh" as one sound.
- ts [ts], [č] — pronounced most often as in English "ts", but sometimes as in English "ch".
- ts' [ts'] — pronounced like English "ts", but strongly exploded.

u [o], [u] — varies from the vowel sound of English “boat”, to that of English “boot”.
w [w] — as in English.
w̥ [w̥] — pronounced like “w”, but with a slight “catch” in the throat.
x [x] — a “friction” sound, like Okanagan-Colville “g”, but pronounced “silently”.
x̥ [X̥] — pronounced like Okanagan-Colville “x”, but further back in the throat.
xw [x̥] — pronounced like Okanagan-Colville “x”, but with rounded lips.
x̥w [X̥] — pronounced like Okanagan-Colville “x̥”, but with rounded lips.
y [j] — pronunciation is similar to English “y”.
y̥ [j̥] — pronounced like “y”, but with a slight “catch” in the throat.
ʔ [ʔ] — a glottal stop, or “catch” in the throat, as in the pronunciation of English slang “uh-uh”.

INDEX TO OKANAGAN-COLVILLE PLANT NAMES

The “alphabetical” order for Okanagan-Colville words is as follows:

a e g ġ gw g ġ gw ġw h i k k' k̥ k' kw kw' k̥w k̥w' l i lh m m̥
n n̥ (o) p p' r r̥ s t t' tl' ts ts' u w w̥ x x̥ xw x̥w y y̥ ʔ

Only the actual names of plants and berries are included in this index; general terms and other associated Okanagan-Colville terms are excluded:

alap̥ispes “Indian parsnip” (*Cymopterus terebinthinus* var. *terebinthinus*) 60
ap̥ken̥úsa7stn “Coyote mint” (*Monardella odoratissima*) 109
ast̥kw western red cedar (*Thuja plicata*) 20
atx̥ilex̥kn dandelion (*Taraxacum officinale*) 85
ayn̥ixw water hemlock (*Cicuta douglasii*) 60
ayw̥istn death camas (*Zygadenus venenosus*) 50
a7p̥en̥w̥ixwtn̥ wild buckwheat (*Eriogonum* spp.) 112
enukutkutunaw̥iuxten (Ray 1932) unidentified 143
gan̥lhp snowbrush (*Ceanothus velutinus*) 120
gayú7 chocolate tips (*Lomatium dissectum*) 66
ġá7tem̥n̥ yellowbell (*Fritillaria pudica*) 46
gwawn̥lhp snowbrush (*Ceanothus velutinus*) 120
gwigwn̥lhp snowbrush (*Ceanothus velutinus*) 120
hápu “cottonwood mushroom” [*Polyporus sulphureus* (?)] 16
haw̥i7lhp “wild weeping willow” (*Salix amygdaloides* and *S. lasiandra*) 135
ia'tak̥n̥ (Ray 1932) golden currant (*Ribes aureum*) 106
ít̥xwa7 “black” camas (*Camassia quamash*) 41
its'í7st̥n̥ large horsetail (*Equisetum hyemale*) 17
i7ts'í7st̥n̥ small horsetail (*Equisetum laevigatum*) 17
káli's (Ray 1932) unidentified 143
kap̥its cabbage (*Brassica oleracea*) 92
k̥mutawiya'k̥n̥ (Ray 1932) unidentified 143
k̥wesw̥esx̥níka7st prince's pine (*Chimaphila umbellata*) 101
k̥w̥u7pu7pús swamp gooseberry (*Ribes lacustre*) 107

k̥gax̥ġáxts'a7 cantaloupe (*Cucumis melo*) 98
kl̥hts'álek̥wtn̥ stoneseed (*Lithospermum ruderales*) 91
k̥mk̥m̥x̥st̥ína7 round-leafed trillium (*Trillium petiolatum*) 50
k̥n̥m̥k̥w'álek̥w tree fungus (*Fomes* spp., *Polyporus* spp.) 16
k̥pagp̥áglek̥w lodgepole pine (?) (*Pinus contorta*) 29
k̥pepstl'í7íka7st wild rose (*Rosa* spp.) 131
ktept̥psálek̥w cascara (*Rhamnus purshiana*) 120
kt̥et̥k̥m̥íks̥t̥ cinquefoil (No. 2) (*Potentilla gracilis*) 127
kt̥ext̥x̥íks̥t̥ sourgrass (*Rumex acetosella*) 113
kt̥ik̥wm̥n̥ birch fungus (*Fomes fomentarius*) 16
kt̥'et̥'ík̥ws saskatoon, or serviceberry (*Amelanchier alnifolia*) 120
kt̥sek̥wts̥k̥wíks̥t̥ beard-tongue (*Penstemon fruticosus*) 139
k̥ts'am̥li7s̥ílh̥m̥lx̥ red twinberry (*Lonicera utahensis*) 94
k̥ts'am̥li7sús̥ red twinberry (berries) (*Lonicera utahensis*) 94
k̥ts'erts'érús̥ tomato (*Lycopersicum esculentum*) 140
k̥ts'erts'éríka7st̥ sourgrass (*Rumex acetosella*) 113
k̥ts'erts'éríks̥t̥ sourgrass (*Rumex acetosella*) 113
k̥y̥ir̥y̥irm̥nt̥sút̥ orange honeysuckle (*Lonicera ciliosa*) 93
k̥'í7k̥'í7t̥n̥ílh̥p green alder and mountain alder (*Alnus crispa* and *A. tenuifolia*) 87
k̥alk̥wí7stn̥ unidentified 143
k̥aws kouse (*Lomatium cous*) 65
k̥ts'im̥ts'a7 squash (*Cucurbita pepo*) 98
k̥ts'us̥ reed canary grass (*Phalaris arundinacea*) 57
k̥'ek̥'ts'a7s̥n̥ína7 blue clematis (*Clematis columbiana*) 117
k̥'ets'asn̥ína white clematis (*Clematis ligusticifolia*) 117
k̥'ets'k̥ets'p̥inas̥ sn̥ína white clematis (*Clematis ligusticifolia*) 117
k̥'íp̥'xwa7 hazelnut (nuts) (*Corylus cornuta*) 90
k̥'ixán̥ false Solomon's seal (*Smilacina racemosa*) and star-flowered Solomon's seal (*S. stellata*) 48
k̥wek̥wek̥weí7 k̥'l-sk̥w'lk̥w'alt̥ yellow violet (*Viola glabella* and *Viola* spp.) 143
k̥wel̥kwel̥ág̥kn̥ red Indian paintbrush (*Castilleja miniata*) 138
k̥wel̥kwíl̥ beets (*Beta vulgaris*) and red Indian paintbrush (*Castilleja hispida*) 96, 138
k̥wer̥íkw̥ wolf lichen, or wolf “moss” (*Letharia vulpina*) 15
k̥wer̥k̥wer̥í7ts'a7 pumpkin (*Cucurbita pepo*) 98
k̥wer̥níkw̥ wolf lichen, or wolf “moss” (*Letharia vulpina*) 15
k̥wk̥wúyk̥wí stl'ek̥w'p̥áks̥ts̥ shooting star (*Dodecatheon pauciflorum*) 117
k̥wek̥k̥weí7t̥ílh̥a7p̥ Sitka willow (*Salix sitchensis*) 136
k̥wek̥k̥weí7t̥ílh̥p̥ Sitka willow (*Salix sitchensis*) 136
k̥wek̥k̥weí7ílh̥m̥lx̥ stonecrop (No. 1) (*Sedum lanceolatum*) 98
k̥w'ex̥wtn̥í7lhp̥ white pine (*Pinus monticola*) 29
k̥w'í7kw'í7lhp̥ hawkweed (*Hieracium scouleri* and *H. cynoglossoides*) 84
k̥w'lít̥k̥'í7lhp̥ buckbrush (*Ceanothus sanguineus*) 119
k̥wek̥weí7t̥ lodgepole pine (*Pinus contorta*) 28
k̥wek̥wíkw̥ág̥y̥ seláxt̥s̥ blue-eyed Mary (*Collinsia parviflora*) 139

kwekwikwágy (skw'lkw'alt) blue violet (*Viola adunca*) 142
 kwekwilhiñ paper birch and western birch (*Betula papyrifera* and *B. occidentalis*) 89
 kweláwi nodding onion (*Allium cernuum*) 38
 kweliwa nodding onion (*Allium cernuum*) 38
 kweikweikín pasture wormwood (*Artemisia frigida*); big sagebrush (*A. tridentata*); short sagebrush (*A. tripartita*); and fleabane (No. 2) (*Erigeron linearis*) 76, 78, 79, 83
 kwikweimniñhp big sagebrush (*Artemisia tridentata*) 78
 kwikwikeniñhmix lupine (*Lupinus* spp.) 105
 kwilhin big white paper birch (*Betula papyrifera*) 89
 kw'eskw'ás bur-reed (*Sparganium eurycarpum*) 57
 kw'ets'kw'ets'wiya7húps yarrow (*Achillea millefolium*) 74
 kw'ets'kw'ets'wi7húpa7s yarrow (*Achillea millefolium*) and sagebrush plantain (*Plantago patagonica*) 74, 111
 kw'ets'kw'ets'wi7húps yarrow (*Achillea millefolium*) 74
 kw'exkw'áxw "Indian celery" (*Lomatium triternatum* and *Lomatium ambiguum*) 70
 lagwúla7xw turnip (*Brassica rapa*) 92
 láklek yellow pond lily (*Nuphar polysepalum*) and white water-lily (*Nymphaea odorata*) 110
 lawán oats (*Avena sativa*) 53
 lexwús saskatoon, or serviceberry (*Amelanchier alnifolia*) 120
 limenó watermelon (*Citrullus vulgaris*) 98
 lipuwá peas (*Pisum sativum*) 106
 ilawán brome grass (*Bromus tectorum*) 53
 lhágla7 wild raspberry (berries) (*Rubus idaeus*) 131
 lhágpnta7 "cottonwood mushroom" [*Polyporus sulphureus* (?)] 16
 lheklheknǵwálhñt poison ivy (*Rhus radicans*) 60
 lheklhkípla7 three-flowered avens (*Geum triflorum*) 126
 lhek'alhpákst saskatoon, or serviceberry (*Amelanchier alnifolia*) 120
 lhełǵálhmeix wild raspberry (*Rubus idaeus*) 131
 lheklheklhkíli7s blue penstemon (*Penstemon confertus* and *P. pruinus*) 139
 lhehlhekmíñhp fireweed (*Epilobium angustifolium*) 110
 lhehlkíilha7p spreading dogbane (*Apocynum androsaemifolium*) 72
 lhexwlháxw chokecherry (berries) (*Prunus virginiana*) 127
 lhexwlhxwíñhp chokecherry (*Prunus virginiana*) 127
 lhu7lháwt thistles (*Cirsium undulatum* and *C. vulgare*) 83
 meríñhp subalpine fir (*Abies lasiocarpa*) 23
 meságy edible valerian (*Valeriana edulis*) 142
 meságywi7 edible valerian (*Valeriana edulis*) 142
 metaskwíñhmix blackcap (*Rubus leucodermis*) 132
 metaskwíñhp blackcap (*Rubus leucodermis*) 132
 mets'mets'í7ñhp oceanspray (*Holodiscus discolor*) 126
 mitl'mn brown-eyed Susan (*Gaillardia aristata*) 84
 mtsakw blackcap (berries) (*Rubus leucodermis*) 132
 mulx black cottonwood (*Populus balsamifera* spp. *trichocarpa*) 134

mxilñhp western red cedar (*Thuja plicata*) 20
 mñmñtññhp trembling aspen (*Populus tremuloides*) 134
 mñsñságywi fraseria (*Frasera montana*) 106
 mñsñságy fraseria (*Frasera montana*) 106
 naḡaxuaxa'it (Ray 1932) unidentified 143
 nekwnúkw western yew (*Taxus brevifolia*) 35
 ngawǵawkin rough wallflower (*Erysimum asperum*) 92
 ngá7tsáks Geyer's lomatium (*Lomatium geyeri*) 68
 ngwagwakín fleabane (No. 3) (*Erigeron philadelphicus*) 83
 ngwagwa7kíñ cinquefoil (No. 1) (*Potentilla arguta*) and yellow Indian paintbrush (*Castilleja thompsonii*) 126, 138
 nki7íws rattlesnake plantain (*Goodyera oblongifolia*) 52
 nkwekwelutitkw water hemlock (*Cicuta douglasii*) 60
 nkwekwil-lhts'a red columbine (*Aquilegia formosa*) 117
 nkwerkwerí7s leafy aster (*Aster foliaceus*) 80
 nkwe'elsítn fairy bells (*Disporum trachycarpum*) 44
 nkwe'xkw'xwpiñkw water knotweed (*Polygonum amphibium*) 113
 nkwekwikwágykn bachelor's button (*Centaurea cyanus*) 82
 nkwekwí7kwi7kágn purple lettuce (*Lactuca pulchella*) and small willowherb (*Epilobium miniatum*) 84, 111
 nkweskwespiñkw "moss" in water 17
 nkweskwespiñla7xw "moss" on ground 17
 nkwikwágykn western mertensia (*Mertensia platyphylla*) and monkshood (*Aconitum columbianum*) 91, 117
 nkwe'kw'ikw'ágykn rush (No. 2) (*Juncus ? mertensianus*) 38
 nkwe'mkin pearly everlasting (*Anaphalis margaritacea*) 75
 nkwe'ets'kw'ets'tnñmúlñ bedstraw (*Galium aparine*) 134
 nmáktu7 high-bush cranberry (berries) (*Viburnum edule*) 95
 nmakt7íñhp high-bush cranberry (*Viburnum edule*) 95
 npekwi7skáxa7tn unidentified (possibly *Corallorhiza* sp.) 143
 nseselñkíñ flat-topped spiraea (*Spiraea betulifolia*) 133
 ntitiwxwús fleabane (No. 1) (*Erigeron filifolius*) 83
 ntk'ewlxísn field bindweed (*Convolvulus arvensis*) 96
 nti7taýxáya7 milkweed (*Asclepias speciosa*) 74
 ntkw'ulxmníp blue clematis (*Clematis columbiana*) 117
 nt'eksítn fairy bells (*Disporum trachycarpum*) 44
 nt'ekt'kíñ beard-tongue, or shrubby penstemon (*Penstemon fruticosus*) 139
 nt'ekwskeñághmix goldenrod (young stage) (*Solidago canadensis*) 84
 nt'ekwt'kwíñ purple penstemon (*Penstemon richardsonii*) 139
 nt'ept'epkin goldenrod (older stage) (*Solidago canadensis*) 84
 nt'et'ept'epkin pineapple weed (*Matricaria matricarioides*) 84
 nt'et'mlpsíñhmix wild gooseberry (*Ribes irriguum*) 107
 nt'et'ekt'kíñxn beard-tongue, or shrubby penstemon (*Penstemon fruticosus*) 139

nt'it'melep wild gooseberry (berries) (*Ribes irriguum*) 107
ntsektkwú (Ranunculus spp.) 144
ntsetsahsmnwíxw arnica (*Arnica cordifolia*) 75
ntsetselfxwkin pineapple weed (*Matricaria matricarioides*) 84
ntsústsestsn purple aster (*Aster conspicuus*) 79
nts'ewts'agw-wíxsn chokecherry (*Prunus virginiana*) 127
nweswestípla7 few-flowered rock cress (*Arabis sparsiflora*) 91
nxíxektsn purple aster (*Aster conspicuus*) 79
(n)xastátkw water-cress (*Rorippa nasturtium-aquaticum*) 92
nxastátkwa water-cress (*Rorippa nasturtium-aquaticum*) 92
nxaxaglhniwt "Coyote mint" (*Monardella odoratissima*) 109
nxesxastátkw water-cress (*Rorippa nasturtium-aquaticum*) 92
n7akw7akwtíxsn field bindweed (*Convolvulus arvensis*) 96
n7ap'nkíts'a7tn locoweed (*Astragalus miser*) 105
ñek'nek'tilha7p pasture wormwood (*Artemisia frigida*) and western sage (*A. ludoviciana*) 76, 78
nek'nek'tílh western sage (*Artemisia ludoviciana*) 78
paḡpaḡáylhmíx "silver" willow (*Salix exigua*) 136
paḡpaḡáylhp "silver" willow (*Salix exigua*) 136
paḡpaḡghemíx European wormwood (*Artemisia absinthium*); short sagebrush (*A. tripartita*); and rabbitbrush (*Chrysothamnus nauseosus*) 75, 79, 83
pálpelkn thimbleberry (berries) (*Rubus parviflorus*) 132
paíkwéwísiya7 inky cap mushroom (*Coprinus micaceus*) 16
paspaslíken (Lerman 1952-54) unidentified 144
paták potato (*Solanum tuberosum*) 140
patsklh cabbage (*Brassica oleracea*) 92
páxwpexlhp "grey" willow (*Salix scouleriana*, *S. bebbiana*, and other *Salix* spp.) 136
pcaí'k (Spier 1938) unidentified 144
peklháñ bitter cherry (*Prunus emarginata*) 127
peklhñílmíx bitter cherry (*Prunus emarginata*) 127
peklhñílh bitter cherry (*Prunus emarginata*) 127
pelpelknílmíx thimbleberry (*Rubus parviflorus*) 132
peñpeñemekxíxsn cup lichen (*Cladonia chlorophaea*) 15
pepaḡpáḡ fleabane (No. 2) (*Erigeron linearis*) and sagebrush plantain (*Plantago patagonica*) 83, 111
pepaḡpaḡáylha7p rabbitbrush (*Chrysothamnus nauseosus*) 83
pesníwlhtn rye grass (*Elymus cinereus*) 55
pespesníwlhtn rye grass (*Elymus cinereus*) 55
píspes "Indian parsnip" (*Cymopterus terebinthinus* var. *terebinthinus*) 60
pi7ík mule ears (*Wyethia amplexicaulis*) 85
punlhp Rocky Mountain juniper (*Juniperus scopulorum*) 19
pupawíáka7 goldenrod (young stage) (*Solidago canadensis*) 84
p'akwstn puffball (*Lycoperdon* spp., *Calvatia gigantea*) 15
p'añústñ unidentified (perhaps *Chenopodium capitatum*) 144
p'axlhp cat-tail (*Typha latifolia*) 57

p'ekwp'kwarñílh fireweed (*Epilobium angustifolium*) 110
p'etl'kín mushrooms 16
p'eliwa Hooker's balsamroot (*Balsamorhiza hookeri*) 80
p'ína7 paper birch and western birch (*Betula papyrifera* and *B. occidentalis*) 89
p'its'elkwna7 balsamroot (*Balsamorhiza sagittata*) 80
p'úkwa7 silverberry (berries) (*Elaeagnus commutata*) 99
p'ukwa7ílh silverberry (*Elaeagnus commutata*) 99
p'úkwi7 silverberry (berries) (*Elaeagnus commutata*) 99
p'ukwi7ílh silverberry (*Elaeagnus commutata*) 99
p'ustñ unidentified 144
qūaqūaqūni'lp (Spier 1938) unidentified 144
q'wílq'wíls (Lerman 1952-54) unidentified 144
saxk Douglas' onion (*Allium douglasii*) and/or Geyer's onion (*A. geyeri*) 38
segáyaḡn water parsnip (*Sium suave*) 71
sehágykw' nodding onion (*Allium cernuum*) 38
selk'íst'iya7 bear grass (*Xerophyllum tenax*) 50
seláxts i7 xásxes western sweet cicely (*Osmorhiza occidentalis*) 70
seláxts i7 xwuxwtl'mílh false Labrador tea (*Ledum glandulosum*) 102
selí7st pinedrops (*Pterospora andromedea*) and pinesap (*Hypopitys monotropa*) 102
sEmárata (Spier 1938) yellowbell (*Fritillaria pudica*) 46
sema7síya7 raisins (*Vitis vinifera*) 143
sepsíp'i7xn mountain ladyslipper (*Cypripedium montanum*) 52
sesáni7stn pearly everlasting (*Anaphalis margaritacea*) 75
sesápt mountain blueberry (berries) (*Vaccinium caespitosum*) 102
sesá7tkwlhp ponderosa pine (young tree) (*Pinus ponderosa*) 29
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