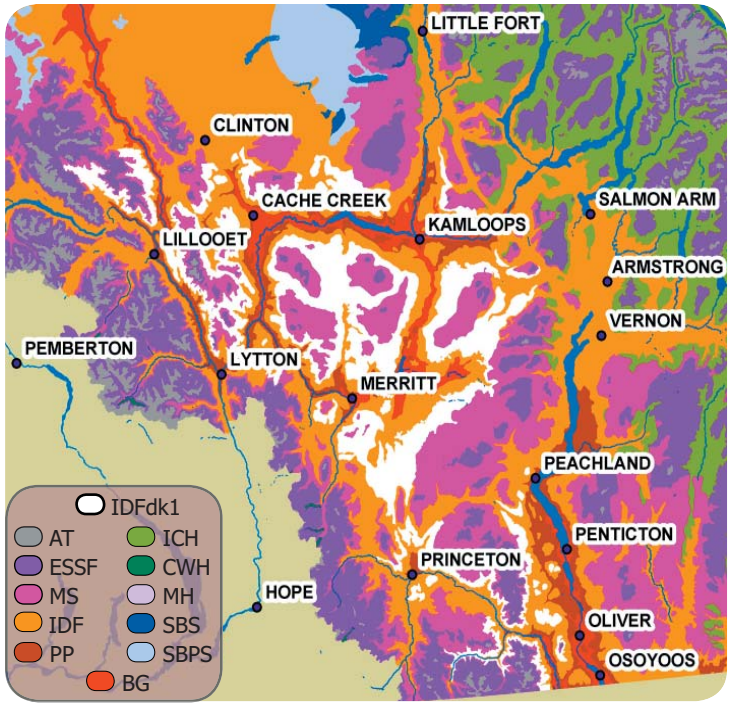
IDFdk1

THOMPSON DRY COOL
INTERIOR DOUGLAS-FIR VARIANT

Distribution: The IDFdk1 variant is widespread throughout the South Thompson Upland, Okanagan Range, Pavillion Ranges and southern part of the North Thompson Upland ecosections. This variant occupies the heart of the former Kamloops Forest Region's "Drybelt". It occurs at mid elevations from the Fraser River between Lytton and the Bridge River and the leeward slopes of the Cascades to Okanagan Lake. It also extends from the the US board north to Pavillion Lake and Heffley Creek including the North and South Thompson watersheds down stream of Heffley Creek and Chase respectively. The IDFdk1 also occurs in the Guichon, Nicola, Similkameen, Ashonola drainages and several small drainages west of Okanagan Lake.



Elevational Range (Mean): The elevation range of the IDFdk1 is **highly variable**. The upper elevation limits are highest in the Pavilion and Okanagan Ranges. It generally starts above the IDFxh1 or IDFxh2 at approximately1200-1300m on north aspects and 1300-1450 on steep south aspects. It extends upslope to the MSxk or MSdm2 at about 1400-1500 m on north slopes and 1450-1600 m on steep south aspects.

Climate: The IDF zone is characterized by a warm, dry climatic regime with a relatively long growing seasons. Soil moisture deficits are common, particularly on south aspects. The IDFdk1 is cooler than the IDFdm, xh, xm, xw and mw. It is slightly cooler than the IDFdk2 but likely warmer than the IDFdk3 or dk4. It has an intermediate precipitation regime when compared to other IDF biogeoclimatic units. The mean annual precipitation ranges between 38 and 51 cm, most of which falls in mid winter and late spring. Snow cover is generally continuous between late November and April but rarely exceeds 75 cm and more typically peaks around 50 cm. Late August soil moisture deficits are the most important climatic factor limiting forest productivity in this variant.

Forest Cover: Much of the IDFdk1 landscape is composed of mature seral stands of Fd and Pl. Pl becomes more dominant at higher elevations and in areas subject to cold air drainage. Py if often present on drier sites, particularly on south aspects at lower elevations. Sxw and Bl occur on wet sites and floodplains generally have Act, Sxw and Ep. Aspen often occurs in isolated patches on mesic to subhygric sites. Wildfires are common and tend to result in mixed severity burns. As a result, isolated individuals or small patches of Fd and/or Lw vets remain in many stands as a testament to their fire resistance. Climax stands of Fd or Fd/Py are relatively common on steep southern exposures where the forests tend to be more open and less susceptible to stand-destroying wildfires. In contrast mesic to submesic sites tend to experience stand-destroying events followed by a relatively short regeneration cycle that results in relatively even-age stands. Stand productivity is slightly higher in the IDFdk1 than the IDFxh1 and slightly lower than the IDFmw. Site index for Fd averages 15-17 on zonal sites and is often 1-2 meters greater for Pl.

Zonal Vegetation and Soils: Mature seral stands are dominated by Fd and varying amounts of Pl. Fd is the principle tree species regenerating in the understory. Shrubs are poor to moderately well developed and consist of birch-leaved spirea, soopolallie and rose. The well developed herb layer is dominated by pinegrass and includes kinnikinnick, wild strawberry, twinflower, showy aster and heart-leaved arnica. Moss cover is moderate and includes red-stemmed feathermoss, heron's-bill moss, ragged moss and pelt lichens. Soils are Dystric or Eutric Brunisols with a Mor or Moder humus form.

Adjacent Biogeoclimatic Subzones: The IDFdk1 occurs above the IDFxh1 or IDFxh2 and below the MSxk or dm2. The IDFdk2 and dm1 occur at similar elevations in areas adjacent to the IDFdk1.

Distinguishing adjacent Biogeoclimatic units from the IDFdk1

IDFxh1 and xh2
- Py is more common on drier sites
- Pl is absent
- prince's pine, soopolallie, and falsebox are less common
- rough fescue and Idaho fescue are more common on dry sites
- grasslands occur more frequently across the landscape

IDFdm1
- Lw is common in successional stands
- grasslands are uncommon across the landscape
- falsebox and prince's pine are more common

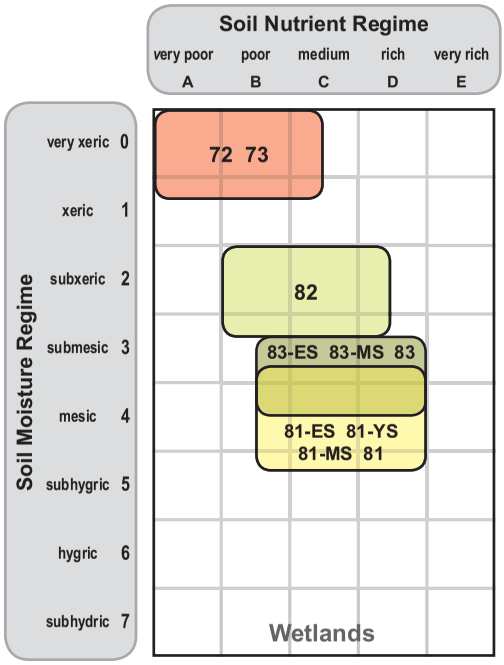
IDFdk2
- falsebox is more vigorous and common (usually greater than 1-2% cover on zonal sites)
- grasslands are uncommon across the landscape
- prince's pine and one-side wintergreen are more common

IDFmw1 and ICHdw2
- Cw and Ep are usually present on mesic sites
- Hooker's fairybells, baldhip rose and sarsaparilla are common
- pinegrass is absent or has low cover on zonal sites
- kinnikinnick is restricted to drier site series

MSdm1
- Sxw and Bl are common on zonal sites
- black huckleberry is present
- grouseberry, arctic lupine and bunchberry are more common and widespread across multiple site series

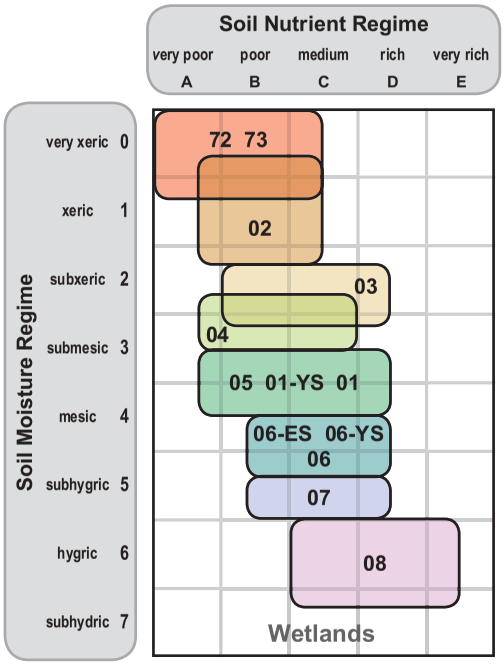
ICHmk1
- Cw, Sxw and Bl common on zonal sites
- Hooker's fairybells, queen's cup, baldhip rose and sarsaparilla common

Edatopic Grid



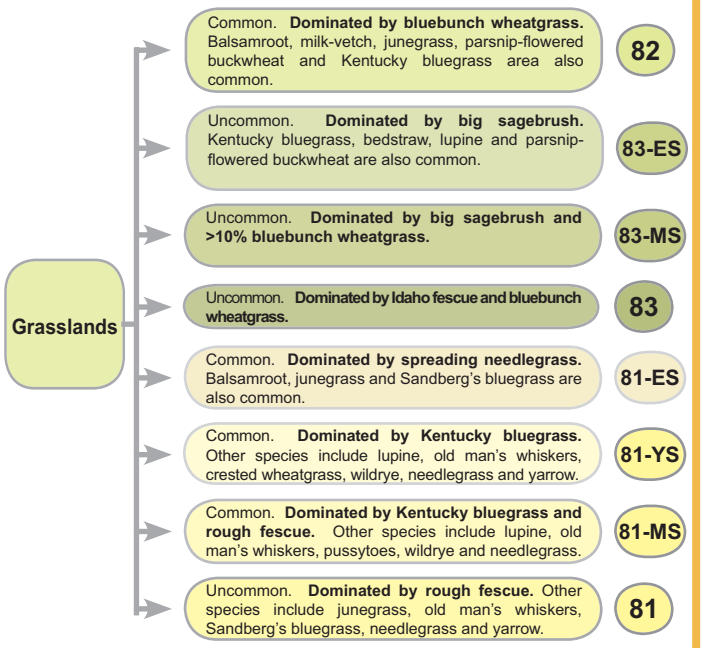
82	Bluebunch wheatgrass — June grass
83-ES	$Big sage — Kentucky bluegrass
83-MS	$Big sage — Bluebunch wheatgrass
83	Idaho fescue — Bluebunch wheatgrass
81-ES	$Spreading needlegrass — Bluebunch wheatgrass
81-YS	$Kentucky bluegrass
81-MS	$Kentucky bluegrass — Rough fescue
81	Rough fescue

Edatopic Grid

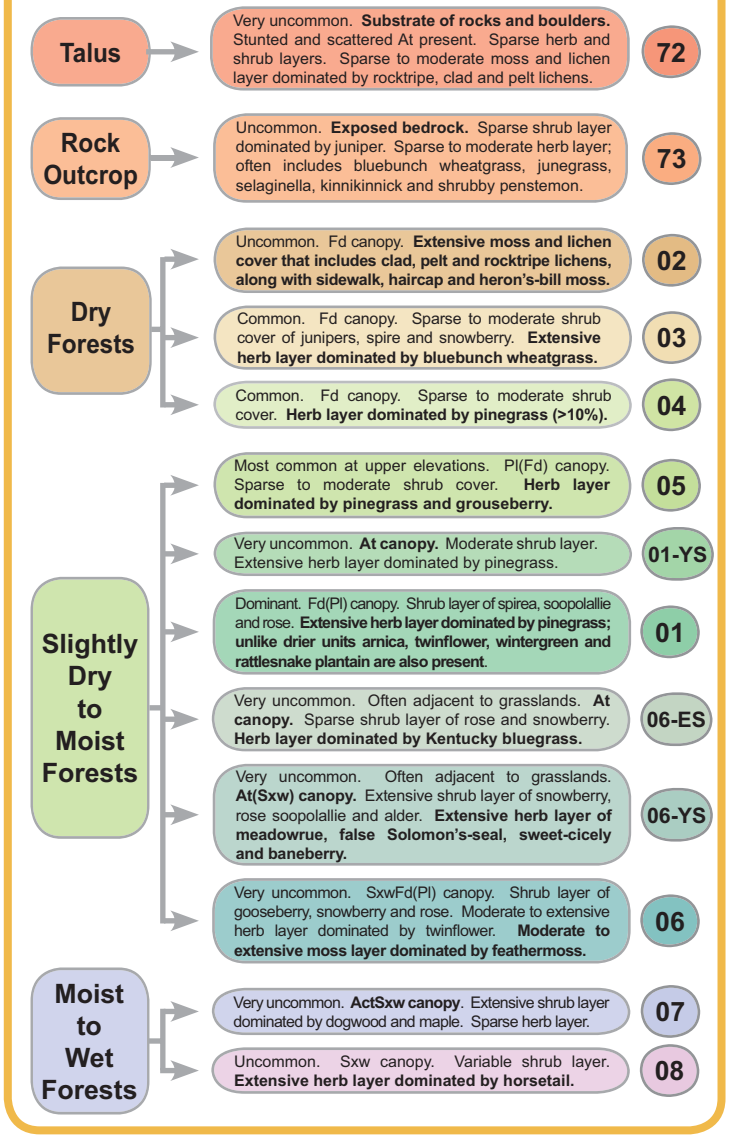


72	Juniper — Rocktripe lichens
73	Selaginella — Clad lichens
02	Fd — Juniper — Kinnikinnick
03	Fd — Bluebunch wheatgrass — Pinegrass
04	Fd — Pinegrass — Kinnikinnick
05	FdPl — Pinegrass — Grouseberry
01-YS	$At — Rose — Pinegrass
01	FdPl — Pinegrass — Feathermoss
06-ES	$At — Kentucky bluegrass
06-YS	$At — Snowberry — Rose
06	SxwFd — Gooseberry — Feathermoss
07	ActSxw — Dogwood
08	Sxw — Horsetail
Wf01	Water sedge — Beaked sedge
Wf02	Scrub birch — Water sedge
Wf05	Slender sedge — Common hook-moss
Wf06	Slender sedge — Buckbean
Wm01	Beaked sedge — Water sedge
Wm02	Swamp horsetail — Beaked sedge
Wm05	Cattail
Wm06	Great bulrush
Wm07	Baltic rush
Ws03	Bebb's willow — Bluejoint
Ws04	Drummond's willow — Beaked sedge
Ws05	MacCalla's willow — Beaked sedge
Ww01	Pond-lily

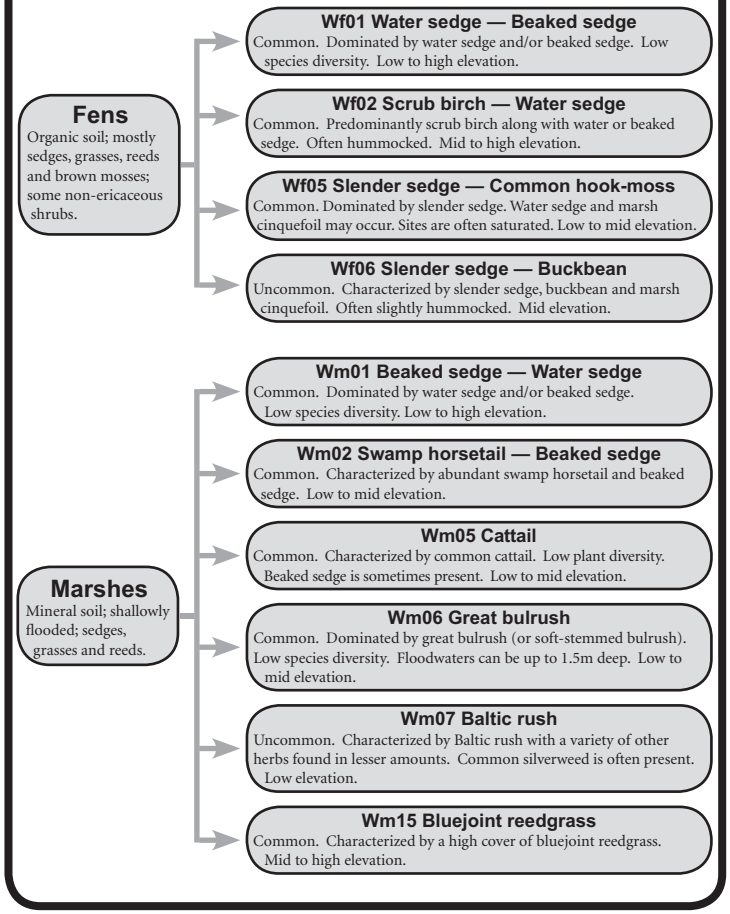
Site Unit Flowchart



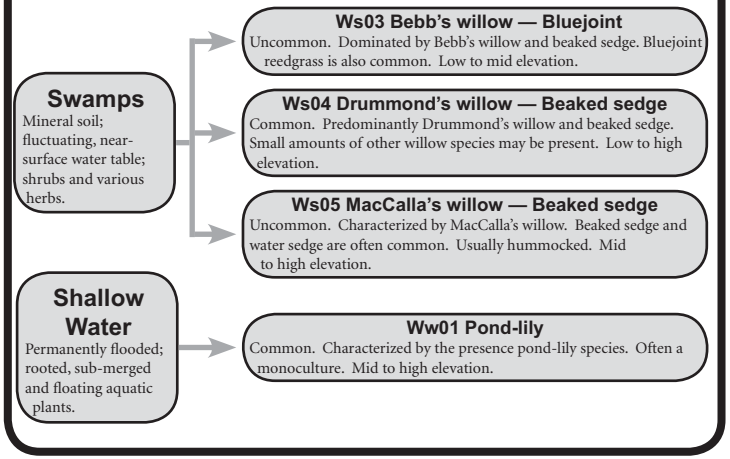
Site Unit Flowchart



Site Unit Flowchart

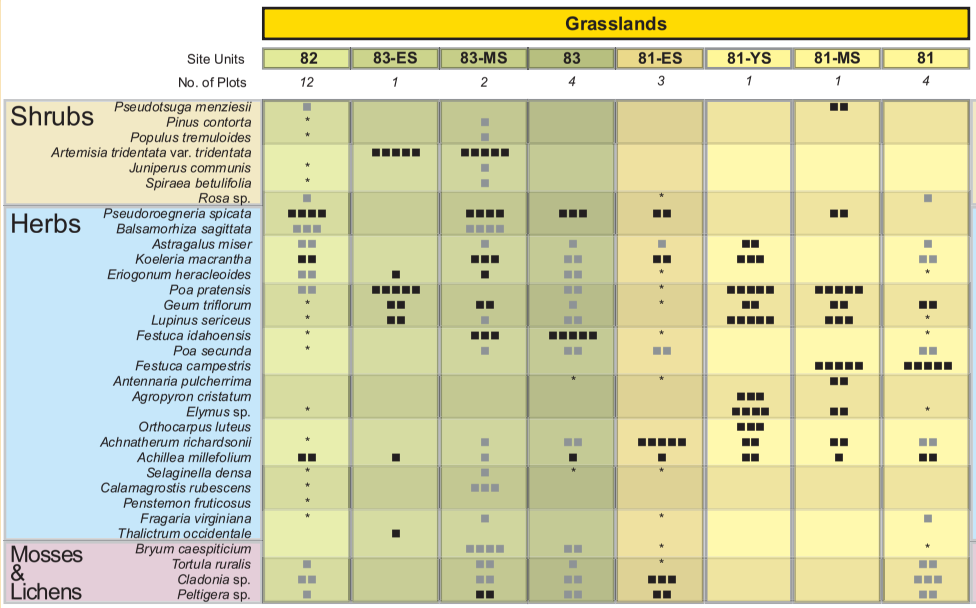


Site Unit Flowchart



Refer to the wetland section in the package of BEC materials for a more thorough characterization of wetland ecosystems.

Vegetation Table



Vegetation Table

		Talus	Rock Outcrop	Forests										
	Site Units	72	73	02	03	04	05	01-YS	01	06-ES	06-YS	06	07	08	
	No. of Plots	4	11	8	16	43	17	4	100	2	1	23	4	11	
Trees	*Pseudotsuga menziesii*	*	■■	■■■	■■■■	■■■■■	■■■	*	■■■■■	■■		■■■■	*	*	Douglas-fir
	Pinus contorta	*	*	*	*	■■	■■■■■	*	■■■		■■	■■		*	lodgepole pine
	Picea engelmannii x glauca	*				*	*		*			■■■■■	■■■	■■■■■	hybrid white spruce
	Populus tremuloides		*				*	■■■■■	*	■■■■■	■■■■■	*	□	*	trembling aspen
	Populus balsamifera ssp. *trichocarpa*		*	■■	■■	■■■	■■	*	■■■			*	■■■■	*	black cottonwood
Shrubs	*Pseudotsuga menziesii*											■■	*	*	Douglas-fir
	Pinus contorta		*	*		*	■■	■■	*			*		*	lodgepole pine
	Picea engelmannii x glauca		*	*		*	*	■■	*			■■	*	■■	hybrid white spruce
	Populus tremuloides	■■	*	*	*	*		■■	*	■■		*		*	trembling aspen
	Paxistima myrsinites	■	*	*	*	*	■		*			*			falsebox
	Juniperus scopulorum	■■	*	*	■■	*	*	*	*					*	Rocky Mountain juniper
	Juniperus communis	■■	■■	■■■	■■	■■	■		*			*		*	common juniper
	Spiraea betulifolia		■	■	■■	■■	■■	*	■■			*			birch-leaved spirea
	Shepherdia canadensis		*		*	■■	■■	■■	■■	■	■	*		*	soopolallie
	Rosa sp.		*	*	*	■	■	■■	■■	■■	■■■	■■	■■	■■	rose
	Symphoricarpos albus		*	*	■■	*	*	■	*	■■	■■■■■	■■	*		common snowberry
	Alnus viridis						*		*		■	*		*	Sitka alder
	Acer glabrum			*	*	*			*			*	■■■		Douglas maple
	Alnus incana												■■	*	mountain alder
	Ribes lacustre								*		■	■■	■■■	■■	black gooseberry
	Cornus stolonifera											*	■■■	■■■	red-osier dogwood
Herbs	*Woodsia* sp.	■	*	*											cliff fern
	Pseudoroegneria spicata	*	■■	*	■■■	*			*						bluebunch wheatgrass
	Balsamorhiza sagittata		*		*	*									arrowleaf balsamroot
	Astragalus miser		*	*	*	■■	*	*	*	■					timber milk-vetch
	Koeleria macrantha	*	■■	■	*	*		*	*						junegrass
	Poa pratensis		*	*		*			*	■■■■■				*	Kentucky bluegrass
	Geum triflorum		*		*	*	*		*	■					old man's whiskers
	Lupinus sericeus		*		*	*	*		*						silky lupine
	Festuca idahoensis				*	*			*						Idaho fescue
	Antennaria pulcherrima					*	*		*				*		showy pussytoes
	Achillea millefolium	*	■	■	■■	■	*	■	*	■	■	*	■	*	yarrow
	Heuchera cylindrica		■	■	*	*			*						round-leaved alumroot
	Selaginella densa		■■	■■		*									compact selaginella
	Calamagrostis rubescens	■	*	■■	■■■	■■■■■	■■■■■	■■■■■	■■■■■	■■	■	■■		*	pinegrass
	Arctostaphylos uva-ursi		■■	■■	■■	■■■	■■■	■■	■■	■		*			kinnikinnick
	Penstemon fruticosus	*	■■	■	■	*									shrubby penstemon
	Aster conspicuus		*	*	*	■■	*	■■	■■			*		*	showy aster
	Fragaria virginiana		*	*	*	■	■■	■■	■	■	■	■		*	wild strawberry

		Site Units	72	73	02	03	04	05	01-YS	01	06-ES	06-YS	06	07	08	
Herbs	*Antennaria racemosa*			*	■■	*	■■	*		*						racemose pussytoes
	Vaccinium scoparium			*	■■	*	*	■■■■		*			*		*	grouseberry
	Lupinus arcticus			*	*	*	*	■■	*	*			*			arctic lupine
	Arnica cordifolia				*	*	*	■■	■■	■■	■		■■			heart-leaved arnica
	Linnaea borealis				*	*	*	■■	■■	■■			■■■	*	■■	twinflower
	Orthilia secunda					*	*		■	■			■■	■	*	one-sided wintergreen
	Goodyera oblongifolia			*	*		*	■		■			■	*		rattlesnake-plantain
	Osmorhiza sp.								■	*	■	■■	■■	■	■	sweet-cicely
	Cornus canadensis							*		*			■■		*	bunchberry
	Trifolium sp.							*	*		■■■■	■		*	*	clover
	Thalictrum occidentale								■	*		■■■■	*	*	*	western meadowrue
	Maianthemum stellatum									*		■■	*	■■	■	star-flowered false Solomon's-seal
	Galium triflorum								*	*		■	■	■■	*	sweet-scented bedstraw
	Actaea rubra									*		■■	■■	■■	*	baneberry
	Equisetum arvense									*			*	■■■	■■■■■	common horsetail
Mosses & Lichens	*Tortula ruralis*		*	■■	■■	*	*			*			*			sidewalk moss
	Cladonia sp.		■■	■■	■■	*	■■	■■		■			■		*	clad lichens
	Peltigera sp.		■	■■	■■	■	■■	■■		■■			■■		*	pelt lichens
	Umbilicaria sp.		■■	*	■■	*	*									rocktripe lichens
	Polytrichum piliferum			■■	*											awned haircap moss
	Polytrichum juniperinum			*	■■	*	*	*		*			*			juniper haircap moss
	Brachythecium sp.			*	*	*	■■	■■		■■		■	*	■	*	ragged-moss
	Dicranum sp.			*	■■	*	*	■		■■		■	■■		*	heron's-bill moss
	Pleurozium schreberi			*	*	*	*	■■■■		■■■■			■■■		*	red-stemmed feathermoss
	Ptilium crista-castrensis						*			*			■■		*	knight's plume
	Hylocomium splendens						*			*			■■		*	step moss

Frequency of Occurrence: ■ >80% ■ 40-80% □ <40% and > 10% cover * <40% and <10% cover

Abundance (Average Percent Cover): ■■■■■ >25% ■■■■ 15-25% ■■■ 7-15% ■■ 1-7% ■ <1%

IDFdk1

Environment Table

Site Units	Grasslands 82	83-ES	83-MS	83	81-ES	81-YS	81-MS	81
Soil Moisture Regime	SX SM	SM M	SM M	SM M	M (SM)	M (SM)	M (SM)	SM M
Mesoslope Position	UP MD (CR)	UP MD	UP MD	UP MD	LV MD (UP)	LV MD (UP)	LV MD (UP)	LV MD (UP)
Slope Gradient	Gentle Steep	Variable	Variable	Variable	Level Gentle	Level Gentle	Level Gentle	Level Gentle
Aspect	Neutral Warm	Variable	Variable	Variable	Neutral	Neutral	Neutral	Neutral
Parent Materials	Mb Cb (FG)	Mb Cb	Mb Cb	Mb Cb	Mb	Mb	Mb	Mb
Soil Texture Class	Coarse Medium	Coarse Medium	Coarse Medium	Coarse Medium	Medium Fine	Medium Fine	Medium Fine	Medium Fine
Important Features								
Successional Stage[1]	PNC	ES	MS	PNC	ES	YS	MS	PNC
Occurrence	Common	Uncommon[2]	Uncommon[2]	Uncommon[2]	Common	Common	Common	Uncommon[3]

[1] Grassland successional stages: ES = Early Seral YS = Young Seral MS = Mid Seral LS = Late Seral PNC = Potential natural climax.
[2] More common in the Okanagan and Similkameen.
[3] Most common and widespread on the Douglas Lake plateau.

Environment Table

Site Units	Talus 72	Rock Outcrop 73	Forests 02	03	04	05	01-YS	01	06-ES	06-YS	06	07	08
Soil Moisture Regime	VX X	VX X	VX X (SX)	SX (SM)	SM SX	M (SM)	M (SM)	M (SM)	SHG (M)	SHG (M)	SHG (M)	SHG	HG (SHG SHD)
Mesoslope Position	MD UP	CR (UP)	CR (UP)	MD UP	MD UP	MD LV	MD LV LW	MD LV LW	LW LV TO GU	LW LV TO GU	LW LV TO GU	LV (GU)	LV (DP)
Slope Gradient	Steep	Steep Gentle	Gentle (Steep)	Steep	Variable	Gentle Level	Variable	Variable	Gentle Level	Gentle Level	Gentle Level	Level (Gentle)	Level
Aspect	Warm	Warm Neutral	Neutral	Warm	Neutral (Warm)	Neutral	Neutral (Cool)	Neutral (Cool)	Neutral	Neutral	Neutral	Neutral	Neutral
Parent Materials	Cb	R (Mv Cv)	R (Cv Mv)	Mb (Cb)	Mb (Cb)	Mb (FG)	Mb	Mb	Fb Mb (FG)	Fb Mb (FG)	Fb Mb (FG)	Fb	Fb
Soil Texture Class	Fragmental	Medium (Fragmental)	Fragmental Medium	Medium (Coarse)	Medium Coarse	Medium Coarse	Variable	Variable	Variable	Variable	Variable	Coarse	Medium (Fine)
Important Features	Rocks & boulders	Bedrock primarily 0-20 cm	Bedrock 0-50 cm						Seepage at depth	Seepage at depth	Seepage at depth	Seepage at depth	Water table 0-35 cm
Successional Stage			MC	MC	MC (MS)	MS	YS	MC (MS)	ES	YS	MC	MS	MC (MS)
Occurrence	Scarce	Un-common	Un-common	Common	Common	Common[1]	Scarce	Dominant	Scarce[2]	Scarce[2]	Scarce	Scarce	Un-common

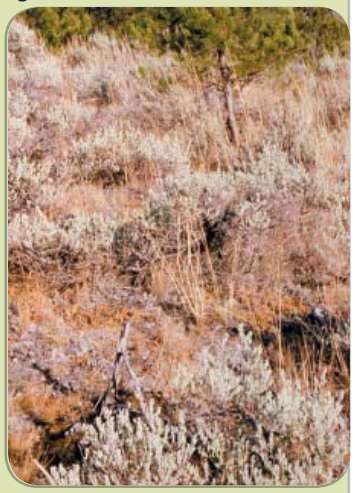
[1] Most common at upper elevations.
[2] Often associated with grasslands.

82 Bluebunch wheatgrass — Junegrass

This grassland unit is common. It occurs on steep and warm or gentle middle and upper slopes and crests. The herb layer is often dominated by bluebunch wheatgrass (>10%). Other common herbs include arrowleaf balsamroot, timber milk-vetch, june grass, parsnip-flowered buckwheat and Kentucky bluegrass. Mosses and lichens are sparse and include sidewalk moss and clad and pelt lichens.

83-ES $Big sage — Kentucky bluegrass

This early seral unit is uncommon. It usually occurs on the Douglas Lake plateau on middle and upper slopes. Big sagebrush dominates the vegetation. Other common species include Kentucky bluegrass, sweet-scented bedstraw, silky lupine and parsnip-flowered buckwheat. Mosses and lichens are sparse to absent.



83-MS $Big sage — Bluebunch wheatgrass

This mid-seral unit is uncommon. It usually occurs on the Douglas Lake plateau on middle and upper slopes. Like the 83-ES unit, big sagebrush dominates the vegetation. However, it differs in that bluebunch wheatgrass is very abundant (>10%) and usually dominates the herb layer. Other common species include arrowleaf balsamroot, junegrass, sweet-scented bedstraw, Idaho fescue and pinegrass. The moss and lichen layer includes tufted thread-moss, sidewalk moss and clad and pelt lichens.

83 Idaho fescue — Bluebunch wheatgrass

This site series is uncommon. It usually occurs on the Douglas Lake plateau on middle and upper slopes. It lacks big sagebrush which characterizes younger successional stages. The herb layer is dominated by a mix of Idaho fescue and bluebunch wheatgrass. Other common species include junegrass, parsnip-flowered buckwheat, Kentucky bluegrass, silky lupine and Sandberg's bluegrass. Mosses and lichens are sparse and include tufted thread-moss, sidewalk moss and clad and pelt lichens.

81-ES $Spreading needlegrass — Bluebunch wheatgrass

This early seral unit is common and occurs on gentle middle and upper slopes and level areas. The herb layer is dominated by abundant spreading needlegrass (>10%). Other common herbs include arrowleaf balsamroot, junegrass and Sandberg's bluegrass. The sparse to moderate moss and lichen layer includes clad and pelt lichens.

81-YS $Kentucky bluegrass

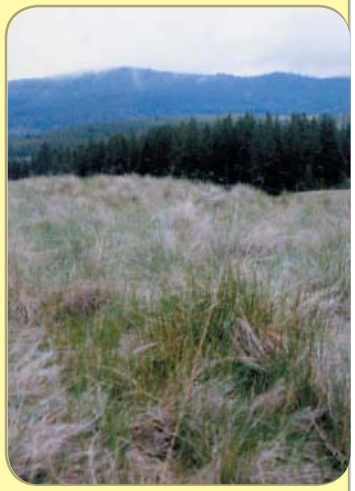
This young seral unit is common and occurs on gentle middle and upper slopes and level areas. The herb layer is dominated Kentucky bluegrass. Other common species include silky lupine, old man's whiskers, crested wheatgrass, wildrye, spreading needlegrass and yarrow. Mosses and lichens are sparse to absent.

81-MS $Kentucky bluegrass — Rough fescue

This mid-seral unit is common and occurs on gentle middle and upper slopes and level areas. It is similar to the 81-YS unit in that Kentucky bluegrass is very abundant but differs in that rough fescue is also very abundant (>20%). Other common herbs include silky lupine, old man's whiskers, showy pussytoes, wildrye and spreading needlegrass. Mosses and lichens are sparse to absent.

81 Rough fescue

Undisturbed zonal sites are found infrequently and therefore the zonal site series is less common that its successional counterparts. They occur on undisturbed, gentle middle and upper slopes and level areas. The vegetation is dominated by rough fescue (>20%) and lacks the Kentucky bluegrass that is characteristic of the 81-MS and 81-YS units. Other common species include junegrass, old man's whiskers, Sandberg's bluegrass, spreading needlegrass and yarrow. The moss and lichen layer is sparse to moderate and includes sidewalk moss and clad and pelt lichens.

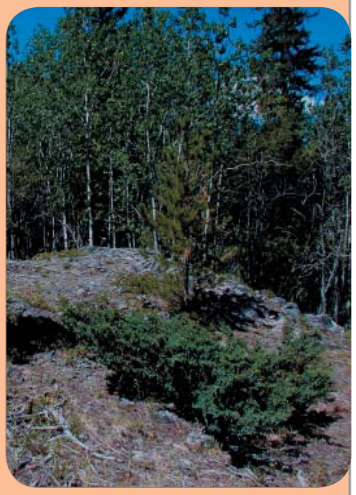


72 Juniper — Rocktripe lichens

This talus unit is very uncommon. It occurs on warm and steep middle and upper slopes. The substrate is composed of rocks and boulders. Trees are largely absent except for stunted, scattered At. The sparse shrub layer includes falsebox, Rocky Mountain juniper and common juniper. The herb layer is very sparse; the most common species are mountain cliff fern and pinegrass. The moss and lichen layer is sparse to moderate and includes rocktripe, clad and pelt lichens.

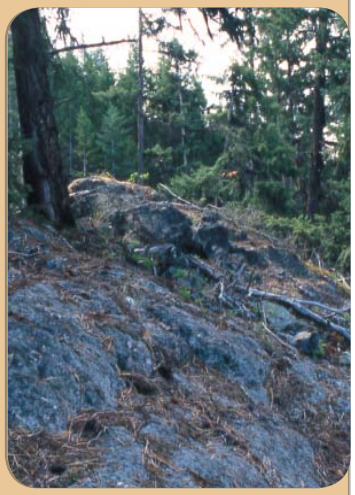
73 Selaginella — Clad lichens

This unit is uncommon and is found on steep or gentle upper slopes and crests where soils are very shallow and exposed bedrock is present. Fd may occur as scattered individuals (<10%). The shrub layer is typically sparse and includes common juniper and birch-leaved spirea. The herb layer is sparse to moderate; the most common species include bluebunch wheatgrass, junegrass, yarrow, round-leaved alumroot, compact selaginella, kinnikinnick and shrubby penstemon. The sparse to moderate moss and lichen layer includes sidewalk moss, clad and pelt lichens and awned haircap moss.



02 Fd — Juniper — Kinnikinnick

This unit is uncommon and is found on steep or gentle upper slopes and crests where soils are very shallow and exposed bedrock is present. Sparse Fd dominates the forest canopy (>10%) and regeneration layer. The shrub layer is sparse and common juniper is usually the most common and abundant species. The herb layer is sparse to moderate; pinegrass is usually the most abundant species. Other common species include round-leaved alumroot, compact selaginella, kinnikinnick and shrubby penstemon. The moss and lichen layer is sparse to extensive; common species include sidewalk moss, clad, pelt and rocktripe lichens, juniper haircap moss and heron's-bill moss.



03 Fd — Bluebunch wheatgrass — Pinegrass

This unit is common and is found on warm and steep middle and upper slopes. The tree layer and sparse regeneration layer are dominated by Fd. The sparse to moderate shrub layer includes Rocky Mountain juniper, common juniper, birch-leaved spirea and common snowberry. Unlike all other units, bluebunch wheatgrass is common and is usually the most abundant species in the extensive herb layer. Other common species include yarrow, pinegrass, kinnikinnick and shrubby penstemon. Mosses and lichens are sparse to absent.

04 Fd — Pinegrass — Kinnickinnik

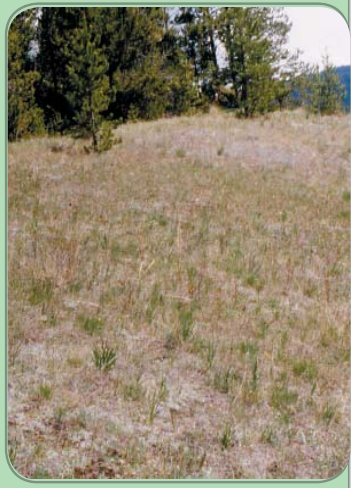
The 04 unit is common and is found on gentle or steep and warm middle and upper slopes. The forest canopy and sparse to moderate regeneration layer consist of Fd. The shrub layer is sparse to moderate and includes common juniper, birch-leaved spirea, soopolallie and rose. The herb layer is extensive and, unlike drier units, is dominated by abundant pinegrass (>10%). Other common species include kinnikinnick, showy aster, timber milk-vetch, wild strawberry and racemose pussytoes. Bluebunch wheatgrass is very sparse or absent. The sparse to moderate moss and lichen layer includes ragged-moss and clad and pelt lichens.

05 FdPl — Pinegrass — Grouseberry

This unit is common, particularly at upper elevations. It occurs on gentle middle slopes and level areas. Unlike all other units, Pl usually dominates the tree layer although Fd may also be abundant. Both species occur in the regeneration layer. The sparse to moderate shrub layer includes birch-leaved spirea, soopolallie, falsebox, and rose. The extensive herb layer differs from all other units in that both pinegrass and grouseberry are the most common and abundant species. Other common species include kinnikinnick, wild strawberry, arctic lupine, heart-leaved arnica and twinflower. Mosses are sparse to moderate and are often dominated by red-stemmed feathermoss. Ragged-moss and heron's-bill moss are often present.

01-YS $At — Rose — Pinegrass

This early seral unit is very uncommon and is found on steep and cool or gentle middle and lower slopes and level areas. The forest canopy is dominated by At. The sparse regeneration layer may contain Pl, Sxw or At. The moderate shrub layer includes birch-leaved soopolallie, rose and common snowberry. The extensive herb layer is dominated by pinegrass (>10%). Other common herbs include kinnikinnick, wild strawberry, heart-leaved arnica, twinflower and one-sided wintergreen. Mosses and lichens are sparse to absent.



01 FdPl — Pinegrass — Feathermoss

The zonal site series occurs on steep and cool or gentle middle and lower slopes and level areas. The forest canopy is dominated by Fd with a minor Pl component. Regeneration is sparse and dominated by Fd. Shrubs include birch-leaved spirea, soopolallie and rose. The extensive herb layer is dominated by pinegrass (>10%); other common herbs include kinnikinnick, showy aster and wild strawberry, Unlike the 04 unit, heart-leaved arnica, twinflower, one-sided wintergreen and rattlesnake-plantain are also frequently present. The moderate to extensive moss and lichen layer is usually dominated by red-stemmed feathermoss. Other common species include heron's-bill moss and ragged-moss.

06-ES $At — Kentucky bluegrass

This early seral unit is very uncommon and is most often associated with grasslands. It is found on gentle lower and toe slopes, gullies and level areas. At dominates the forest canopy. The sparse shrub layer contains rose and common snowberry. The herb layer is dominated by abundant Kentucky bluegrass (>20%). Clover, yarrow, sweet-cicely and yarrow may also be present. Mosses and lichens are sparse to absent.

06-YS $At — Snowberry — Rose

This young seral unit is very uncommon and is most often associated with grasslands. It is found on gentle lower and toe slopes, gullies and level areas. At dominates the forest canopy. A minor amount of Sxw may also be present. The shrub layer is extensive; it contains common snowberry, rose, soopolallie and Sitka alder. The extensive herb layer differs from other At-dominated units in that Kentucky bluegrass and pinegrass are sparse to absent. Instead, common species include western meadowrue, star-flowered false Solomon's-seal, sweet-cicely and baneberry. Mosses and lichens are sparse to absent.

06 SxwFd — Gooseberry — Feathermoss

The 06 unit is very uncommon and is typically associated with grasslands. It occurs on gentle lower and toe slopes, gullies and level areas. At is sparse to absent and the forest canopy is dominated by Sxw and Fd. Pl is sometimes present. The sparse to moderate shrub layer includes black gooseberry, common snowberry and rose. The moderate to extensive herb layer differs from drier units in that pinegrass is sparse to absent; common species include heart-leaved arnica, twinflower, one-sided wintergreen, rattlesnake plantain, sweet-cicely, bunchberry and baneberry. The moderate to extensive moss layer includes red-stemmed feathermoss, heron's-bill moss, knight's plume and step moss.

07 ActSxw — Dogwood

This unit is very uncommon. It is found on level areas and gullies where seepage is present. The tree layer is variable; Sxw or Act may be dominant species. The extensive shrub layer includes abundant red-osier dogwood and Douglas maple. Other common species include black gooseberry, mountain alder and rose. The herb layer is sparse; common species include common horsetail, sweet-scented bedstraw and star-flowered false Solomon's-seal. Mosses and lichens are sparse to absent.

08 Sxw — Horsetail

This uncommon unit is found on level areas and depressions where the water table is at or near the surface area. The forest canopy differs from all other units in that it is dominated by Sxw. The shrub layer is highly variable; common species include rose, black gooseberry and red-osier dogwood. The extensive herb layer is dominated by abundant common horsetail (>10%). Other common species include twinflower, sweet-cicely and star-flowered false Solomon's-seal. Mosses and lichens are sparse to absent.