

TABLE 4.1. Subzone/variant names, tree species and elevation

Biogeoclimatic zone	Climate region	Map symbol	Subzone/variant	Tree species <sup>a</sup>	Elevation ranges S=South aspect N=North aspect
PP Ponderosa Pine	Dry	PPdh <sup>1</sup>	Kettle Dry Hot Ponderosa Pine Variant	Py, Fd At, Ac, Sxw, (Lw <sup>b</sup> ), [-Pl <sup>c</sup> ]	500-950m <sup>S</sup>
	Dry	PPdh2	Kootenay Dry Hot Ponderosa Pine Variant	Py, Fd Sxw, At, Ac, (Lw, Pl)	700-950m <sup>S</sup>
IDF Interior Douglas-fir	Dry	IDFhx1 <sup>d</sup>	Okanagan Very Dry Hot Interior Douglas-fir Variant	Fd, Py At, Ep, (Lw), [-Pl]	500-1200m <sup>S</sup> 500-1050m <sup>N</sup>
	Dry	IDFun	Undifferentiated Interior Douglas-fir Subzone	Fd	
	Dry	IDFdm1	Kettle Dry Mild Interior Douglas-fir Variant	Fd Lw, Pl, Py, Sxw, At, Ac, Ep, (Cw)	500-1370m <sup>S</sup> 500-1280m <sup>N</sup>
	Dry	IDFdm2	Kootenay Dry Mild Interior Douglas-fir Variant	Fd Py, Lw, Pl, Sxw, At, Ac, (Ep)	800-1200m <sup>S</sup> 800-1100m <sup>N</sup>
ICH Interior Cedar - Hemlock	Moist	ICHxw	Very Dry Warm Interior Cedar - Hemlock Subzone	Cw, Bg Lw, Fd, Pl, Py, Sxw, At, Ac, Ep, Hw, Pw	450-1100m <sup>S</sup>
	Moist	ICHdw	Dry Warm Interior Cedar - Hemlock Subzone	Hw, Cw, Ac, (Bl) Lw, Fd, Pl, Py, Sxw, Pw, Bg, Ep, At	450-1200m <sup>S</sup> 450-1000m <sup>N</sup>
	Moist	ICHmw1	Golden Moist Warm Interior Cedar - Hemlock Variant	Hw, Cw Fd, Pl, Sxw, Pw, Ep, Ac, (Bl), [-Lw]	750-1550m <sup>S</sup> 750-1500m <sup>N</sup>
	Moist	ICHmw2 <sup>e</sup>	Columbia-Shuswap Moist Warm Interior Cedar - Hemlock Variant	Hw, Cw Fd, Pl, Pw, Sxw, At, Lw, Ac, Ep, Bl [-Bg, -Py]	500-1450m <sup>S</sup> 500-1400m <sup>N</sup>

TABLE 4.1. (Concluded)

Biogeoclimatic zone	Climate region	Map symbol	Subzone/variant	Tree species <sup>a</sup>	Elevation ranges S=South aspect N=North aspect
AT Alpine Tundra	Dry, Moist, Wet	AT			Min. Elev. 2600 m in Dry Region; 2400 m in Moist Region; 2300 m in Wet Region

<sup>a</sup> Species in bold type are zonal climax, other species are seral or non-zonal species.

<sup>b</sup> ( ) Bracketted species are rare species.

<sup>c</sup> [-] Square brackets and minus sign denote diagnostic absence of species.

<sup>d</sup> Please refer to Kamloops Forest Region Fieldguide (Lloyd *et al.*, 1990) for site identification and management interpretations for the IDFxh1, ICHmw3, and ESSFwc2. These variants are of limited extent in the Nelson Region.

<sup>e</sup> The southern portion of this variant is found above the ICHdw, i.e., at elevations of 1200-1550 m.

<sup>f</sup> These species occur in the lower elevations of the subzone/variant.

# PPdh1

## Variant Summary

### Kettle Dry Hot Ponderosa Pine Variant

**Location:** The southern extremities of the Kettle River Valley. Valley bottoms and mid to lower elevations on south-facing slopes and terraces between Johnstone Creek and Boundary Falls and between July Creek and Christina Lake. It is more widespread in the USA.

**Elevation range:** 500 to 950 m.

**Climate**<sup>18</sup>: Dry Climatic Region; very hot, very dry summers; mild winters with very light snowfall. Soils are expected to dry out for long to short time periods during late summer. Snow accumulations are insignificant and of very short duration, but soils generally do not freeze due to the mild, dry climate. Lack of soil moisture is a major limitation to tree growth, along with frost on level or depressional sites.

**Soils, geology, and landforms:** Common rock types in the PPdh1 include andesite, gneiss, schist, granite, sandstone, conglomerate and basalt. Upper, steeper slopes are covered by loamy textured colluvial soils and sandy textured glaciofluvial soils. These soils tend to have sandy subsurface textures. Bedrock commonly occurs within 15-50 cm of the surface on colluvial soils. Lower slopes are covered by sandy to loamy fluvial soils and loamy to silty morainal soils. Silty textured loess cappings often occur in this variant. Restricting layers and calcareous subsoils occur below the surface in many of the deeper soils.

**Zonal vegetation:** Zonal sites have open stands of Py with an understory dominated by bluebunch wheatgrass, cheatgrass, junegrass, and arrow-leaved balsamroot. Grassland sites (site series 03) are more common than the forested zonal sites in this variant.

### Distinguishing the PPdh1 from adjoining subzone/variants

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In the <b>IDFdm1</b>	- falsebox
most sites have:	- more soopolallie, birch-leaved spirea, tall Oregon-grape, kinnikinnick, and heart-leaved arnica
	- less cheatgrass, arrow-leaved balsamroot, narrow-leaved collomia, tall tumble-mustard, small-flowered blue-eyed Mary, junegrass, Kentucky bluegrass, and yellow salsify
zonal sites also have:	- Pl, Lw, common juniper and pinegrass
	- more Fd
dry sites have:	- less compact selaginella
wet sites have:	- Sxw and Cw, Utah honeysuckle, black twinberry, black gooseberry, thimbleberry, highbush-cranberry, and lady fern
	- more trailing raspberry
	- less common dandelion

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In the <b>IDFxm1</b>	- pinegrass
zonal sites have:	- no bluebunch wheatgrass
	- more Fd, birch-leaved spirea and tall Oregon-grape

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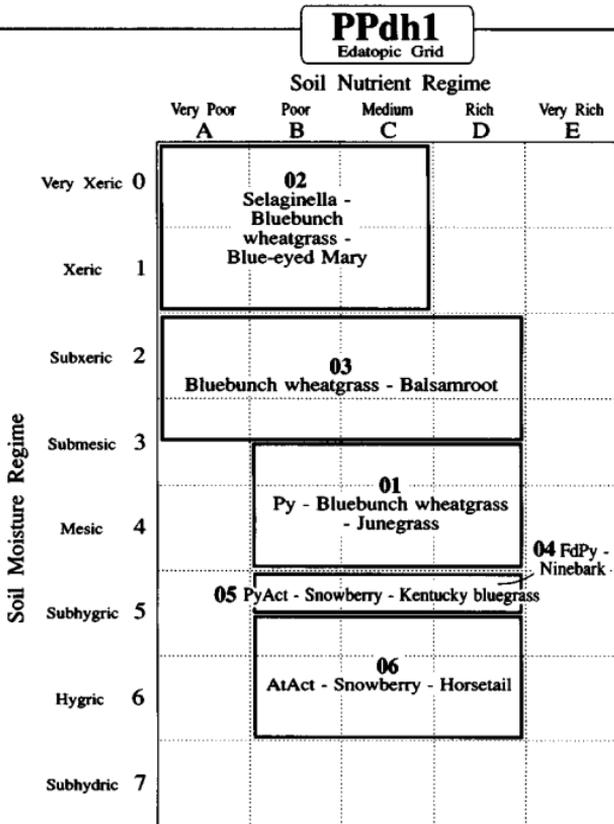
**Forest characteristics:** The PPdh1 is dominated by grassland and open Py stands. Frequent low intensity ground fires are the major disturbance feature.

<sup>18</sup> Values for climate descriptors given in Appendix 12.

**Range characteristics:** Area is heavily infested with weeds (knapweeds, common hound's-tongue, leafy spurge). Disturbance should be minimized; any essential soil disturbance should be seeded immediately to prevent invasion of weeds.

The classification of grasslands for this variant is based on good range condition data. The most notable feature for deteriorating condition is the reduction in cover of bluebunch wheatgrass.

**Wildlife habitat:** Grasslands in this variant are essential for the survival of rare species such as Burrowing Owl, Brewer's Sparrow, badger, and Great Basin pocket mouse. Talus and rocky cliffs are important habitat for gopher snake, western rattlesnake, and the endangered Canyon Wren. Snags, dead and down material, and cover patches are used by many species as nest and feeding sites. The variant also provides winter range for white-tailed deer, mule deer, and bighorn sheep.



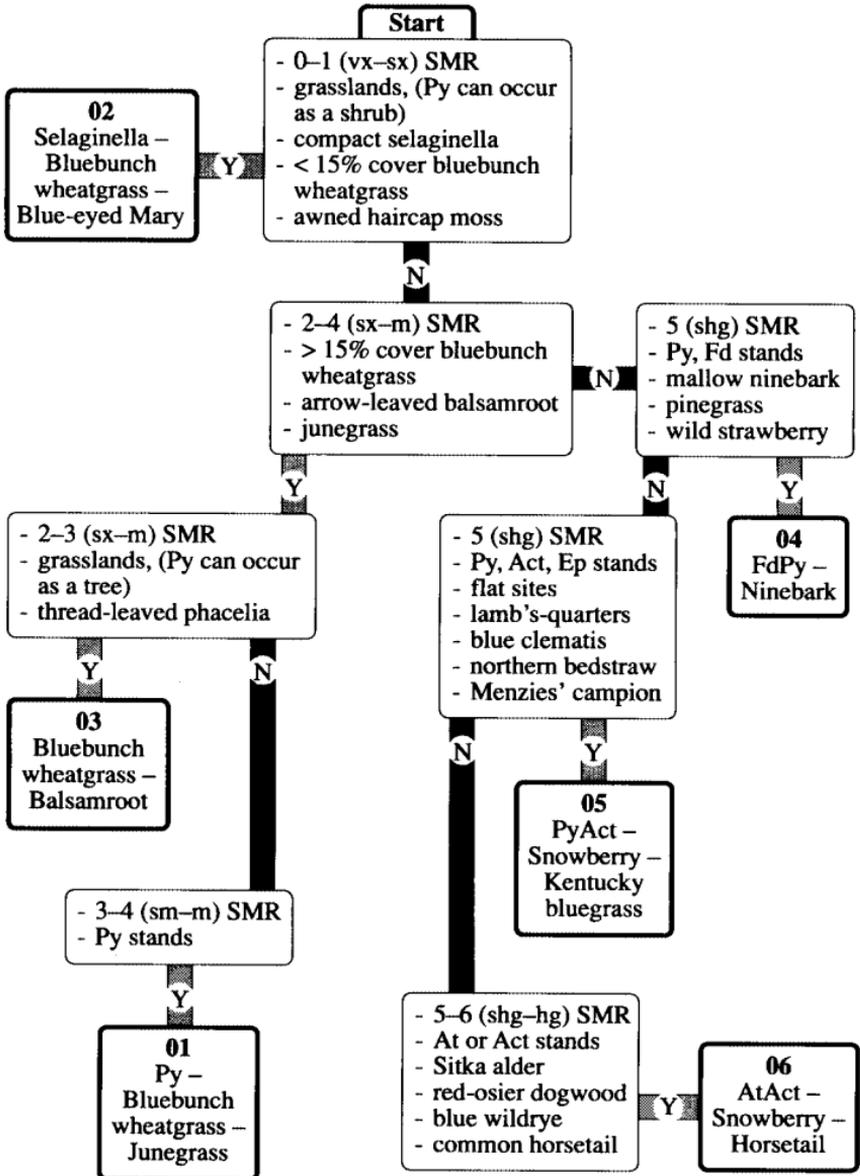
# PPdh1 Vegetation Table

Site Series	02	03	01	04	05	06	
<b>TREES</b>							
<i>Pinus ponderosa</i>			▬	▬	▬		ponderosa pine
<i>Pseudotsuga menziesii</i>			▬	▬	▬		Douglas-fir
<i>Populus balsamifera</i>					▬	▬	black cottonwood
<i>Betula papyrifera</i>					▬		paper birch
<i>Populus tremuloides</i>						▬	trembling aspen
<b>SHRUBS</b>							
<i>Amelanchier alnifolia</i>	□		□	▬	□	▬	saskatoon
<i>Physocarpus malvaceus</i>				▬			mallow ninebark
<i>Symphoricarpos albus</i>	□		▬	▬	▬	▬	snowberry
<i>Clematis occidentalis</i>					▬		blue clematis
<i>Alnus crispa ssp. sinuata</i>						▬	Sitka alder
<i>Cornus stolonifera</i>						▬	red-osier dogwood
<b>HERBS</b>							
<i>Collinsia parviflora</i>	□						small-flowered blue-eyed Mary
<i>Selaginella densa</i>	▬	▬					compact selaginella
<i>Phacelia linearis</i>	▬	▬					thread-leaved phacelia
<i>Agropyron spicatum</i>	▬	▬	▬	▬			bluebunch wheatgrass
<i>Bromus tectorum</i>	▬	▬	▬	▬	▬		cheatgrass
<i>Balsamorhiza sagittata</i>	▬	▬	▬	▬			arrow-leaved balsamroot
<i>Koeleria macrantha</i>	▬	▬	▬				junegrass
<i>Calamagrostis rubescens</i>				▬			pinegrass
<i>Fragaria virginiana</i>				▬			wild strawberry
<i>Poa pratensis</i>					▬	▬	Kentucky bluegrass
<i>Smilacina stellata</i>					▬	▬	star-flowered false Solomon's-seal
<i>Taraxacum officinale</i>					▬	▬	common dandelion
<i>Aster conspicuus</i>					▬	▬	showy aster
<i>Chenopodium album</i>					▬	▬	lamb's-quarters
<i>Galium boreale</i>					▬	▬	northern bedstraw
<i>Silene menziesii</i>					▬	▬	Menzies' campion
<i>Sisymbrium altissimum</i>					▬	▬	tall tumble-mustard
<i>Thlapsi arvense</i>					▬		field pennycress
<i>Equisetum arvense</i>						▬	common horsetail
<i>Aralia nudicaulis</i>						▬	wild sarsaparilla
<i>Elymus glaucus</i>						▬	blue wildrye
<b>MOSESSES AND LICHENS</b>							
<i>Polytrichum piliferum</i>	▬	▬	▬				awned haircap moss
<i>Cladonia spp.</i>	▬		▬				cladonias
<i>Tortula ruralis</i>	▬	▬					sidewalk moss

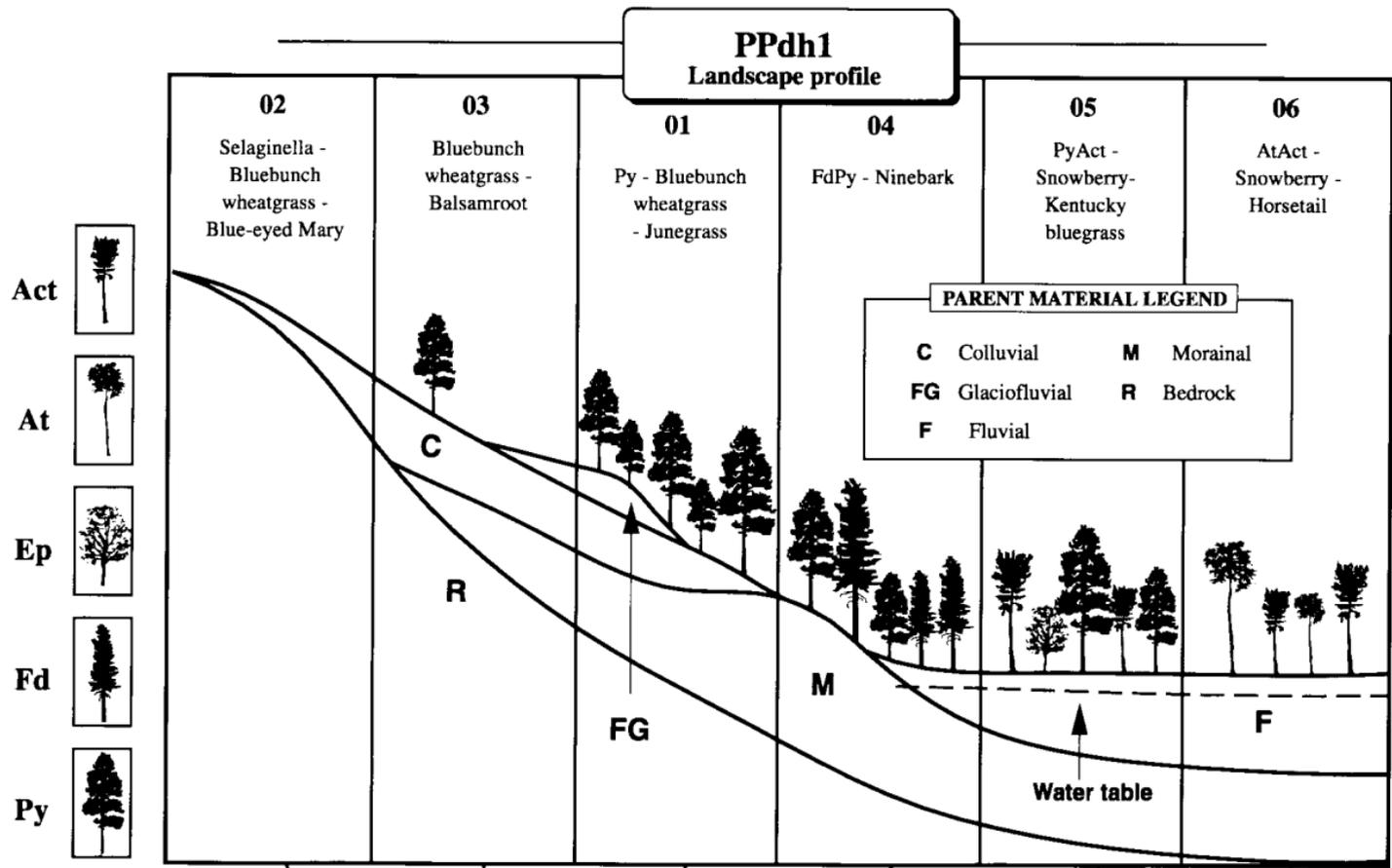
Approximate Cover Classes:    □ <1%    ▬ 1 - 7%    ▬ 7 - 15%    ▬ 15 - 25%    ▬ >25%

# PPdh1

## Site Series Flowchart



Y = Yes; N = No



**PPdh1 Environmental Table**

Site series	02	03	01	04	05	06	
Number of plots	5	15	7	7	4	3	
Soil moisture regime <sup>a</sup> (SMR)	(0) <sup>b</sup> 1(2) (vx)x(sx)	2-3(4) sx-sm(m)	3-4 sm-m	5 shg	5 shg	5(6) shg(hg)	
Aspect	warm or n.a.	mostly warm	variable	variable	n.a.	n.a.	
Slope gradient %	variable	20-50	26-65	variable	0	0	
Slope position	crest (level)	crest-mid	upper-mid	variable, mostly lower	lower	level (lower)	
Parent material	C	C(FG)	C,FG	M,F	F	F	
Soil texture coarse fragments % (min.- <b>mean</b> -max.)	0-30 cm	L(S,\$) 30- <b>32</b> -40	L(S) 25- <b>42</b> -60	L(C,S,\$) 2- <b>28</b> -42	L(\$) 0- <b>20</b> -40	S,L 0	S,\$,L 0
	30+ cm	S 40- <b>40</b> -40	L,S(C,\$) 30- <b>52</b> -75	S,\$,L 5- <b>28</b> -45	L(C,S,\$) 3- <b>31</b> -55	S,L 0	S,\$,L 0- <b>20</b> -60
Humus form — LFH thickness cm (min.- <b>mean</b> -max.)	Mull 0	Mull 0- <b>0.5</b> -4	Moder (Mull) 0- <b>3</b> -8	Moder 1- <b>3</b> -8	Moder 1- <b>2</b> -6	Mull 1- <b>1</b> -9	
Important site features	restricting layer common; average depth 15 cm	restricting layer common; average depth 50 cm	—	some colluvial or fluvial veneers	—	water table below 35 cm; may find thick moder humus	

<sup>a</sup> Environmental features contained in this table are defined in Section 3.4.4.

<sup>b</sup> Values in brackets less common.

# PPdh1

## Management Interpretations<sup>a</sup>

Site series	Number of plots	Common seedling growth limiting factors <sup>a,b</sup>	Relative tree productivity		Vegetation potential - common complexes <sup>c</sup>	Road drainage control needs (see cautions <sup>a,e</sup> )	Common site sensitivities (see cautions <sup>a,d</sup> )	Other prescription considerations
			Gross volume productivity	Growth class (site index, tree species)				
02	5	Dry soil	n.a.	n.a.	Low - grass	Low	H displacement hazard on all sites; H forest floor displacement hazard on moderate slopes	No timber values; Conserve limited organic matter on moderate and steeper slopes
03	16	Dry soil	n.a.	n.a.	Medium - grass	Low	H displacement hazard on moderate slopes	No timber values
01	7	Dry soil	Very low	Medium <sup>f</sup> (17, Fd)	Medium - grass	Low	H displacement hazard on steep slopes; H forest floor displacement hazard on very steep slopes	Partial cutting recommended; Conserve limited organic matter on very steep slopes

04	7	Cold air temp., Dry soil	Low	Medium (18 Fd)	Medium - pinegrass	Moderate	H displacement hazard on steep slopes; H forest floor displacement hazard on very steep slopes	Partial cutting recommended; Flat sites frost prone; Conserve limited organic matter on very steep slopes
05	4	Cold air temp.	No data	Medium <sup>f</sup> (18, Fd)	Medium - grass	Moderate	-----	Frost prone sites; Riparian
06	3	Cold air temp.	No data	No data	Medium - mixed shrub	Moderate	H compaction hazard on silty soils	Frost prone sites; Random machine travel during short period of dry soil conditions; Windthrow hazard; Riparian

<sup>a</sup> **Caution:** Based on sample plot data; some interpretations expected to vary with individual site conditions. Use of original interpretive tools is necessary; these interpretations are presented here to "red flag" common concerns. This table outlines key considerations that should go into management decisions. Rationale and interpretive tools are discussed in Section 3.6.

<sup>b</sup> These include air temperature, soil temperature, vegetation, soil moisture, and soil nutrients; use of SYTEPREP recommended, see Section 3.6.1.

<sup>c</sup> Complexes described in Newton and Comeau (1990).

<sup>d</sup> **Caution:** This is presented here to "red flag" common drainage needs and is not intended to substitute for site specific engineering interpretations, see Section 3.6.4.

<sup>e</sup> **Caution:** Site sensitivity keys must be used with you site data for the PHSP; see section 3.6.5.

H = high, 30 - 45% = moderate slope, 45 - 60% = steep slope, >60% = very steep slope.

<sup>f</sup> Sample size less than five plots for site index determination.

TABLE 6.1 Selected wildlife species by subzone and variant<sup>a</sup>

Species	Status <sup>b</sup>	Degree of old-growth need <sup>c</sup>	PP dh1	PP dh2	MS dm	MS dk	IDF xh	IDF dm1	IDF dm2	ICH dw, xw	ICH mk	ICH mw	ICH wk	ESSF dk, dc	ESSF wm, wc, vc
<b>AMPHIBIANS</b>															
Coeur d'Alene salamander	B									y <sup>d</sup>					
Ensatina salamander	G	a					y								
Tailed frog	B	a									y				
Tiger salamander	B						Y	Y							
<b>REPTILES</b>															
Gopher snake	B		Y				Y								
Night snake	B						y								
Western rattlesnake	B		Y				Y			y					
Painted turtle	Y		Y	Y			Y	Y	Y	Y	Y	Y	y		
<b>MAMMALS</b>															
Badger	B		y	y	y	y	Y	Y	Y	y	y	y	y	y	y
Big brown bat	G	a	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Bighorn sheep	Y			pw	y	Psaw	PW	Y	Y	y	s			Y	s
Black bear	Y	a	y	y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Bobcat	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Caribou	B	d				w						sW	Y	PsAW	Y
Cascade mantled ground squirrel	R	a			y		y	y						y	
Cougar	Y		y	y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Coyote	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Elk	Y		Y	Y	s	Y	y	Y	Y	Y	Y	Sy	y	PSAw	SA
Fisher	B	a			Y	Y	Y		Y		y	y	y	Y	Y

TABLE 6.1. (Continued)

Species	Status <sup>b</sup>	Degree of old-growth need <sup>c</sup>	PP dh1	PP dh2	MS dm	MS dk	IDF xh	IDF dm1	IDF dm2	ICH dw, xw	ICH mk	ICH mw	ICH wk	ESSF dk, dc	ESSF wm, wc, vc
<b>MAMMALS</b>															
Gray wolf	Y		y	y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Great Basin pocket mouse	B		Y												
Grizzly bear	B	a			y	PSAw	p	p	p	Psaw	y	y	Y	SAW	SAW
Long-legged myotis	G	a	S	S			S	S	S	S	S	S	S	S	S
Lynx	Y		y	y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Marten	Y	d	y	y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Moose	Y	a			Y	Y	PsAW		Y	y	Y	Y	y	pSAw	pSAw
Mountain goat	Y	a			y	PsAW	y		w			Y		Y	Y
Mule deer	Y	a	PsAW		PSAW	Y	Y	Y	Y	Y	S	Sw	S	SA	SA
Northern flying squirrel	G	a			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Northern long-eared myotis	B	a										s	s		S
Porcupine	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red-tailed chipmunk	B					Y				Y	y	Y			
River otter	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Silver-haired bat	Y	a	S	S	S	S	S	S	S	Y	Y	Y	Y	S	S
Southern red-backed vole	G	a			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Townsend's big-eared bat	R		S				S	S		y	y	y			
White-tailed deer	Y		Y	Y	PSA	Y	Y	Y	Y	Y	S	S	s	PSA	PSA
Wolverine	Y	a	y	y	y	y	Y	Y	Y	y	y	y	y	y	y

TABLE 6.1. (Continued)

Species	Status <sup>b</sup>	Degree of old-growth need <sup>c</sup>	PP dh1	PP dh2	MS dm	MS dk	IDF xh	IDF dm1	IDF dm2	ICH dw, xw	ICH mk	ICH mw	ICH wk	ESSF dk, dc	ESSF wm, wc, vc
<b>BIRDS</b>															
American Avocet	B		p			p			ps	p	p				
American White Pelican	R		sm				sM	sM	sm		sm				
Anna's Hummingbird	B						aw	sw	w		pw				
Arctic Tern	B						sa	a							
Bald Eagle	B	a	swM		ps	ps	swM	swM	swM	sM	swM	Psa	ps	ps	
Barn Owl	Y						y	s			psw				
Barred Owl	G	a	pw				y	y	y	a	y	a			
Barrow's Goldeneye	Y	a	SwM		sm	sm	SwM	SwM	SwM	sm	y	y	sm	sm	
Black-backed Woodpecker	G	a	y	y	y	y	y	y	y	y	y	y	y	y	y
Black-chinned Hummingbird	B						ps	ps	ps		ps				
Black-crowned Night Heron	B						sm			s	ps				
Blue Grouse	Y	a	y	y	y	y	y	y	y	y	y	y	y	y	y
Bobolink	B		ps			s	ps	ps	ps	ps	ps				
Boreal Owl	G	a			a	a				p		p		y	y
Brewer's Sparrow	B		ps				ps	ps	ps	ps					
Brown Creeper	G	a	y	y	y	y	y	y	y	y	y	y	y	y	y
Bufflehead	Y	a	SwM	SwM	SwM	SwM	SwM	SwM	SwM	sm	SwM	ps	ps	ps	ps
Burrowing Owl	R		wm				y	a							
California Gull	B		sa				Y	ps	sm	sm	PSa w	sa			
Canyon Wren	R		y				sm			y					

TABLE 6.1. (Continued)

Species	Status <sup>b</sup>	Degree of old-growth need <sup>c</sup>	PP dh1	PP dh2	MS dm	MS dk	IDF xh	IDF dm1	IDF dm2	ICH dw, xw	ICH mk	ICH mw	ICH wk	ESSF dk, dc	ESSF wm, wc, vc
<b>BIRDS</b>															
Caspian Tern	B						ps			ps					
Chestnut-backed Chickadee	G	a			y	y				Y	y	Y	Y		
Clark's Nutcracker	G	a	AW		psAW	psAW	sMW	sMW		psAW	psAW	psAW	y	y	y
Common Merganser	Y	a	SwM		sm	sm	SwM	SwM		PSaw	SwM	SwM	sm	ps	ps
Common Poorwill	R		s				sm	s		ps					
Flammulated Owl	B	a	a		ps		s	sm						s	
Forster's Tern	R						sm			PSa					
Grasshopper Sparrow	B						sm	ps							
Gray Jay	G	a	w		y	y	y	y		y	y	y	y	y	y
Great Blue Heron	B	a	Y		s	s	Y	Y		SwM	sa	SwM	sa		
Great Gray Owl	G	a	y		s		y	y			w	w			
Green-backed Heron	B							s		p					
Gyrfalcon	B						wm	wm			a				
Hairy Woodpecker	G	a	y		y	y	y	y		y	y	y	y	ps	ps
Hermit Thrush	G	a	sm		sa	sa	sm	sm		sm	sm	sm	sm	s	s
Hooded Merganser	Y	a	SwM		sm	sm	SwM	SwM		PSaw	SwM	SwM	sm	ps	ps
Hudsonian Godwit	B					s	a	p							
Least Sandpiper	B		sm		a	a	sm	sm		a	a	a	a	a	a
Le Conte's Sparrow	B							s							

TABLE 6.1. (Continued)

Species	Status <sup>b</sup>	Degree of old-growth need <sup>c</sup>	PP dh1	PP dh2	MS dm	MS dk	IDF xh	IDF dm1	IDF dm2	ICH dw, xw	ICH mk	ICH mw	ICH wk	ESSF dk, dc	ESSF wm, wc, vc
<b>BIRDS</b>															
Lesser Golden-plover	B		m				m	m		a		a			
Lewis' Woodpecker	B	a	sm				SwM	sm		sm	sm	sm	a		
Long-billed Curlew	B		ps				psa	ps		ps					
Merlin	G	a	y	sm	sm	y	y	y	y	y	y	sm	sm	sm	
Northern Goshawk	G	a	y	y	y	y	y	y	y	y	y	y	y	y	y
Northern Shrike	B		mw	mw	mw	y	y	y		mw	mw	mw	mw	a	a
Olive-sided Flycatcher	G	a		ps	ps	sm	sm	sm		ps	ps	ps	ps	s	s
Osprey	Y	a	PSa	ps	ps	PSaw	PSa	SwM		ps	PSaw	sm			
Pacific Loon	B		swm	s		swm	swm	swm		swm	swm	swm	sm	sm	sm
Peregrine Falcon	B		sm	m	sm	y	sm	sm		sm	sm	sm	ps	ps	ps
Pileated Woodpecker	Y	a	y		y	y	y	y		y	y	y	y		ps
Prairie Falcon	R		m			y	sm	sw		y	s				
Pygmy Nuthatch	G	a	y			y	y								
Red-breasted Nuthatch	G	a	y	y	y	y	y	y		y	y	y	y	y	y
Red-breasted Sapsucker	G	a				s						ps			
Red Crossbill	G	a		Y	Y	Y	Y	Y		Y	Y	Y	Y	y	y
Red-throated Loon	B					aw	a								
Ring-billed Gull	B		sm			Y	sm	swM		sm	sM	s			
Short-billed Dowitcher	B		p		ps	a	m	s			s				
Spruce Grouse	Y	a	y	y	y	y	y	y		y	y	y	y	y	y
Three-toed Woodpecker	G	a	y	y	y	y	y	y		y	y	y	y	y	y
Townsend's Warbler	G	a		sm	sm	sm	sm	sm		sm	sm	sm	sm	sa	sa

TABLE 6.1. (Continued)

Species	Status <sup>b</sup>	Degree of old-growth need <sup>c</sup>	PP dh1	PP dh2	MS dm	MS dk	IDF xh	IDF dm1	IDF dm2	ICH dw, xw	ICH mk	ICH mw	ICH wk	ESSF dk, dc	ESSF wm, wc, vc
<b>BIRDS</b>															
Varied Thrush	G	a	w		sm	sm	y		y	psAW	smw	psA W	psA W	sm	sm
Vaux's Swift	B	a	PS				PSa	PSa	PSa	ps	PSa	s			
Western Bluebird	B		ms				sm			sm	sm	sm			
Western Flycatcher	G	a			sm	sm				sm	sm	sm	sm		
Western Grebe	B					m	SwM	sm	SwM	sm	sm	sm	sm		
White-breasted Nuthatch	G	a	y				y	y	y	y	y	m			
White-headed Woodpecker	B	a					y	ps							
White-throated Swift	B		ps				ps			ps					
White-winged Crossbill	G	a			sm	sm	sm	sm	sm	sm	sm	sm	sm	sa	sa
Williamson's Sapsucker	B	a	ps		sm		ps								
Wood Duck	Y	a	sm				w	ps		sm	ps	ps			
Yellow-breasted Chat	B									s					
Yellow-headed Blackbird	Y		PSaw		ps	ps	PSaw	PSaw	PSa	sm	PSa	ps			
<b>TOTAL<sup>e</sup> AMPHIBIANS</b>			4	4	5	8	7	6	7	6	6	3	3		
<b>TOTAL REPTILES</b>			6	0	0	10	3	7	6	6	4	0	0		
<b>TOTAL MAMMALS</b>			51	54	57	62	63	58	57	63	57	57	56		
<b>TOTAL BIRDS</b>			220	154	172	281	250	262	205	234	188	114	108		

See footnotes next page

TABLE 6.1. (Concluded)

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- a** The following subzones and variants are grouped to match the level of information available for the species listed. IDFxh includes data from IDFxh, xw, and xm; IDFdm includes data from IDFdm and dk; ICHmk includes data from ICHmk and dk; ESSFdk and dc includes data from ESSFdk, dc, and dv; and ESSFwm, wc, vc includes data from ESSFwm, wc, vc, vv, vw, and wk. The IDFxw, xm, and dk, ICHdk, and ESSFdv, vv, vw, and wk are not found in the Nelson Forest Region.
- b** R=red; B=blue; Y=yellow; G=green.
- c** a=attribute dependent. Species requires old-growth forest attributes such as large dead trees or coarse woody debris (stand level).  
d=forest dependent. Species requires intact old-growth forests (landscape level).
- d** Abundance is indicated by a lower or upper case letter. Common or abundant is an upper case letter. Uncommon, scarce, rare, or casual is a lower case letter. An upper case letter does not indicate abundance throughout a subzone variant, but nearly always refers to local abundance. However, if a species has a known abundance in only a small locality in a subzone or variant a lower case letter is used. Seasonality is indicated by a letter code.  
P - spring (March-May); S - summer (June -August); A - autumn (September-November); W - winter (December-February); M - migratory (Spring and Autumn);  
Y - yearlong. Some cases do not fit neatly into this scheme. For instance, a species which is known to be migratory, but has on occasion been seen in December in a particular subzone, would still be listed as M. All entries are based on the provincial wildlife data base prepared by Stevens (1992) for the Wildlife Interpretation Subgroup.
- e** Totals refer to the total number of species known to occur in each subzone.