

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	PPdh1	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>

# ICHxw<sup>25</sup>

## Subzone Summary

### Very Dry Warm Interior Cedar - Hemlock Subzone

**Location:** The ICHxw is present from mid slope to valley floors in the Pend d'Oreille Valley and on western and southern exposures and valley floors from Boswell to Kitchener (east of Creston). This subzone has limited Occurrence in British Columbia and occurs more extensively in northeast Washington and northern Idaho.

**Elevation range:** 450 to 1100 m

**Climate<sup>26</sup>:** The ICHxw is located in the Moist Climatic Region; very hot, dry summers and very mild winters with very light snowfall. The ICHxw has less precipitation, warmer summers, and more growing degree days than the ICHdw. Soils dry out for long to insignificant time periods in late summer. Snowpacks are very shallow and of very short duration, but the soils generally do not freeze because of the mild climate. Moisture is one of the major limitations to tree growth.

**Soils, geology, and landforms:** Common rock types in the Selkirk mountains of the ICHxw include quartzite, argillite, limestone, phyllite, granite, and syenite. Rock types in the Purcell mountain areas of the subzone include quartzite, argillite, siltstone, granodiorite, and quartz diorite. Glaciofluvial soils with sandy to silty textures occur on lower and level slope positions. Morainal soils with loamy, sandy, or clayey textures cover lower to upper slope positions. Some morainal soils are calcareous. Steep, upper slope positions have colluvial soils with sandy rubbly textures. Loess cappings with silty textures are common in this subzone.

**Zonal vegetation:** Climax zonal sites are characterized by closed canopy stands of Fd and Py, with sporadic regeneration of Cw, Hw, and Bg. Common snowberry, ocean-spray, mock-orange, saskatoon, hazelnut, and baldhip rose are common shrubs. Fairybells and twinflower are the dominant herbs.

Drier sites of the ICHxw have open stands of Fd, Py, and Pl with redstem ceanothus, tall Oregon-grape, birch-leaved spirea, saskatoon, common snowberry, bluebunch wheatgrass, yarrow, pinegrass, and western fescue.

Wetter sites of the ICHxw have forested stands of Lw, Cw, Hw, Fd, Pw, and Bg with falsebox, devil's club, western yew, queen's cup, one-leaved foamflower, prince's pine, and twinflower.

### Distinguishing the ICHxw from adjacent subzones/variants

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In the ICHdw	- more Cw and black huckleberry
most sites have:	- less common snowberry, ocean-spray, ninebark, and mock-orange
dry sites have:	- less bluebunch wheatgrass
wet sites have:	- more five-leaved bramble and oak fern

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**Forest characteristics:** The ICHxw has very few climax stands due to frequent wildfires. Douglas-fir is the dominant tree species; Py and Lw are also common; Cw, Bg, and rarely, Hw are found on mesic or wetter sites; Pl and Pw are less common seral species.

**Wildlife habitat:** Fire and the abandonment of farm fields, has resulted in extensive shrub fields and mixed Fd/Py stands. This environment supports a wide diversity of birds. Maintaining the natural diversity is important to these species. The ICHxw is very important winter habitat for ungulates, especially white-tailed deer and elk. The valley floor wetlands at Creston are very important habitat for birds and other aquatic species. The only known B.C. population of the Coeur d'Alene salamander is found near Kuskanook.

<sup>25</sup> Because of a lack of data, no vegetation or environment tables, site series flowchart, or management interpretation tables are provided. Please refer to the ICHdw management interpretations and consider the drier climate of the xw.

<sup>26</sup> Values for climatic descriptors given in Appendix 12.

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.