Subzones and Variants of the BG Zone in the Cariboo Forest Region

Two subzones of the BG Zone, each represented by a single variant, are present in the Cariboo Forest Region:
BGxh - Very Dry Hot BG Subzone
BGxh3 - Fraser Variant
BGxw - Very Dry Warm BG Subzone
BGxw2 - Alkali Variant
These two subzones correspond approximately to the lower and middle grasslands of the Cariboo Forest Region described by Nicholson and Hamilton (1984).

BGxh3 Variant The BGxh3 includes the driest, warmest, and lowest-elevation grasslands of the Region. It is a relatively small biogeoclimatic unit (269 km^2) that occurs primarily below 650 m on lower slopes and terraces of the Fraser River valley. Climax vegetation on zonal sites is distinguished by prominent big sagebrush and a herb layer dominated by bluebunch wheatgrass and junegrass. Relatively few vascular species are present and a crust of lichens, mosses, and cyanobacteria comprises a significant proportion of the soil cover in climax vegetation. This variant is not present in any other Region, although the BGxh subzone occurs in the Kamloops and Nelson regions.

BGxw2 Variant The BGxw2 occurs at elevations above the BGxh3 (approximately 650–900 m) on middle and upper slopes of the Fraser and lower Chilcotin river valleys. It is slightly larger (627 km^2) than the BGxh3 and is distinguished from the BGxh3 by having little or no big sagebrush, a greater total vascular plant cover, and a greater diversity of vascular plant species on zonal sites. In addition, porcupine grass is common on moist lower slopes and in shallow depressions. On zonal sites, the vegetation is dominated by bluebunch wheatgrass, needle-and-thread grass, junegrass, umber pussytoes, and a well-developed lichen crust dominated by Cladonia lichens. Douglas-fir forests are common on lower slopes, north aspects, and in draws within the BGxw2.

BGxh3
BUNCHGRASS VERY DRY HOT SUBZONE FRASER VARIANT

The BGxh3 is a relatively small (269 km^2) variant located almost entirely within the Cariboo Forest Region. It includes the lower slopes and terraces of the Fraser River valley south from the confluence of the Chilcotin River to about the border with the Kamloops Forest Region, where it is replaced by the BGxh2. Elevations are from valley bottom (approximately 500 m) to approximately 650 m.

Distinguishing Adjacent Units from the BGxh3

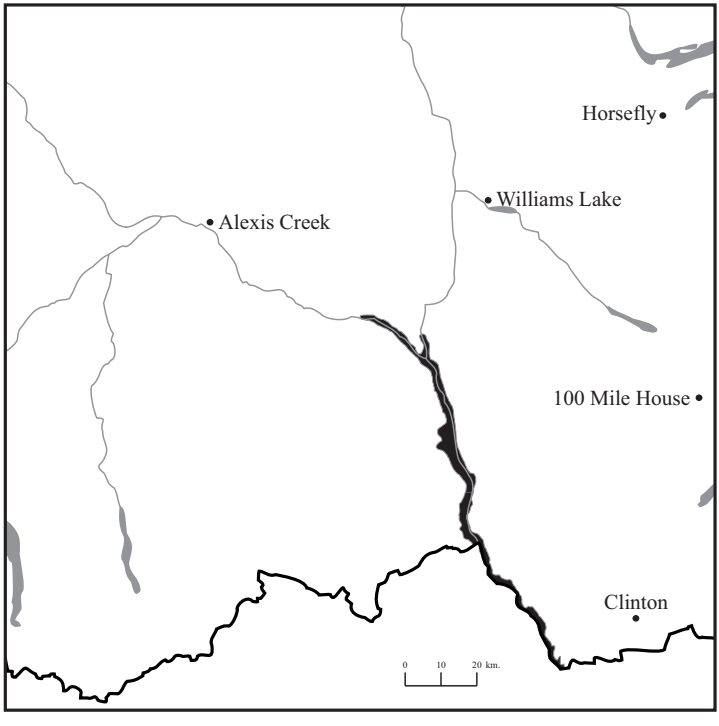
The **BGxw2** occurs at elevations above the BGxh3 throughout most of its distribution. South of Big Bar Creek, however, the **IDFxw** borders the upper elevations of the BGxh3. In this area, the BGxw2, which normally lies above the BGxh3, is pinched out due to the steep slopes on the west side of the Edge Hills.

In the **BGxw2**, climax vegetation on zonal sites has:
- little or no big sagebrush;
- less prickly pear cactus;
- smaller relative abundance of junegrass;
- greater relative abundance of needle-and-thread grass;
- greater diversity and total cover of vascular plants.

moist sites have:
- frequent porcupine grass and occasional spreading needlegrass.

In the **IDFxw**, zonal sites have:
- Douglas-fir forests as climax vegetation;
- common pinegrass, soopolallie, and kinnikinnick.

Distribution of BGxh3 Variant in the Cariboo Forest Region



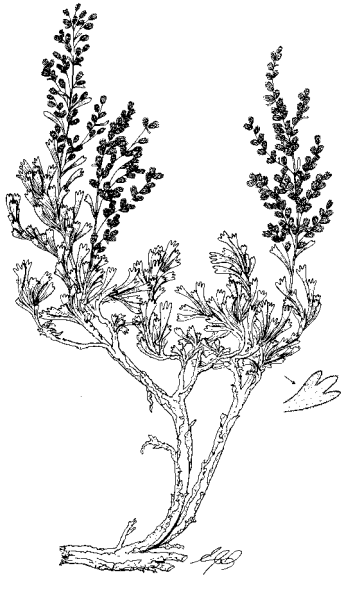
Site Units of the BGxh3

A classification of forested sites in the BGxh3 is not available at the present time but will be prepared for incorporation into this guide in the near future.

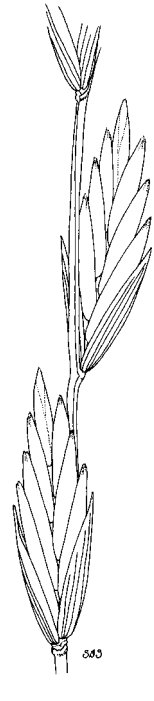
Zonal Sites Zonal sites are less common in the BGxh3 than in many other biogeoclimatic units due to the prevalence of steep slopes and the frequent occurrence of coarse soils. The zonal site series occurs on gentle to moderate slopes with loamy soils and on the frequent fluvial terraces that are present in the valley. The vegetation is dominated by bluebunch wheatgrass, big sagebrush, and junegrass. Large clumps of prickly pear cactus are common. Needle-and-thread grass is also common and often increases following disturbance. Ground lichens cover 30–80% of the soil surface, with principal species being *Cladonia cariosa, C. pyxidata*, and *C. symphicarpa*. Mosses (including *Tortula ruralis* and *Hypnum* spp.) and cyanobacteria are interspersed with the lichens.

Drier Sites Sites drier than zonal sites are very common and occur on hill crests, steep slopes, shallow soils over bedrock, moderate south- and west-facing slopes, and sandy or gravelly soils. Although these sites have grassland vegetation, they frequently have scattered Douglas-fir and, south of Churn Creek, ponderosa pine. Common species on drier sites include bluebunch wheatgrass, big sagebrush, rabbit-brush, sand dropseed, pasture sage, and needle-and-thread grass.

Wetter Sites Sites wetter than the zonal site series include moist gullies, depressions, streamside riparian sites, and cool north and east aspects. These sites often have Douglas-fir forests. Those occurring in moist draws and ravines and along larger watercourses have a Douglas-fir canopy and a shrubby undergrowth that includes Douglas maple, common snowberry, rose, water birch, and several forbs and grasses. Black cottonwood forests with a shrubby undergrowth are scattered along the Fraser and Chilcotin rivers. Douglas-fir forests on steep north and east aspects generally have moderate to high cover of bluebunch wheatgrass, junegrass, yarrow, mosses, and ground lichens.



Big sagebrush
Artemisia tridentata



Bluebunch wheatgrass
Elymus spicatus

TABLE A1.1. Site units (shaded) in the Cariboo Forest Region and their precorrelation equivalents (unshaded).

Current (correlated) BEC unit code												
BEC Unit		Site unit										
		/01	/02	/03	/04	/05	/06	/07	/08	/09	/10	/11
		Equivalent precorrelation code										
	BEC Unit	Ecosystem unit										
AT	AT	(site units not yet described)										
BGxh3	PPBGg	(see Iverson and Coupé 1996a)										
BGxw2	PPBGe	(see Iverson and Coupé 1996b)										
CWHds1	CWHc	see Guide for Vancouver Region (Green and Klinka 1994)										
ESSFdc2	ESSFe1	see Guide for Kamloops Forest Region (Lloyd et al. 1990)										
ESSFwc3	ESSFh2	/01	/02	/03								
ESSFwk1	ESSFh1	/01	/02	/03	/05	/04	/07 in part	/07 in part				
ESSFxc	ESSFd	see Guide for Kamloops Forest Region (Lloyd et al. 1990)										
ESSFxv1	ESSFg, ESSF undif	npe	npe	npe	npe	npe	npe	npe	npe			
ESSFxv2	ESSFg, ESSF undif	npe	npe	npe	npe	npe	npe	npe	npe			
ICHdk	ICHe3	/01	/02	/03	/04	/05	/06	/07	/08	/09		
ICHmk3	ICHe2	/01,/04	/02	/03	/05	/06	/07	/08				
ICHmw3	ICHm1	see Guide for Kamloops Forest Region (Lloyd et al. 1990)										
ICHwk2	ICHh1	/01,/05	/02	/03	/04	/06 in part	/06 in part	/07	/08			
ICHwk4	ICHh2	/01,/06	/02	/03	/04	/05	/07	/08	/09			
IDFdk3	IDFb2	/01	/03	/02	/05	/04	/06	/07	/08	/09, /10		
IDFdk4	IDFb5	/01	/02	/03	/04	/05	/06	/07	/08	/09	/10	
IDFdw	IDFundiff.	npe	npe	npe	npe	npe	npe	npe	npe			
IDFmw2	IDFj1	see Guide for Kamloops Forest Region (Lloyd et al. 1990)										
IDFxm	IDFa4	/01	/02	/03	/04	/05	/06	/07	/08	/09		
IDFxw	IDFa2	/01,/05,/07	/02	/03	/04	/06	/08	/09				

[a]No previous equivalent (npe)

APPENDIX 5
ACTUAL SOIL MOISTURE REGIME RELATIONSHIP TO RELATIVE SOIL MOISTURE REGIME AND BIOGEOCLIMATIC UNIT

BEC				Relative soil moisture regime				
unit	0	1	2	3	4	5	6	7
BGxh3	ED	ED	ED	ED	ED	SD	M	W
BGxw2	ED	ED	ED	ED	ED	SD	M	W
IDFxw	ED	ED	VD	VD	MD	SD	M	W
IDFxm	ED	ED	VD	VD	MD	SD	M	W
SBPSxc	ED	ED	VD	VD	MD	SD	M	W
SBPSdc	ED	ED	VD	MD	SD	F	M-VM	W
SBPSmk	ED	VD	VD	MD	SD	F	M-VM	W
IDFdk3	ED	VD	VD	VD	MD	F	M	W
IDFdk4	ED	VD	VD	VD	MD	F	M	W
IDFdw	ED	VD	VD	MD	MD	F	VM	W
IDFmw2	VD	VD	VD	MD	SD	F	VM	W
MSxk	VD	VD	VD	VD	MD	F	M	W
MSxv	VD	VD	VD	MD	SD	F	VM	W
SBPSmc	VD	VD	VD	MD	SD	F	M-VM	W
SBSdw1	VD	MD	MD	SD	SD	F	M	W
SBSdw2	VD	MD	MD	SD	SD	F	M	W
SBSmh	VD	MD	MD	SD	SD	M	VM	W
SBSmw	VD	MD	MD	SD	F	M	VM	W
SBSmc1	VD	MD	MD	SD	F	M	VM	W
SBSmc2	VD	MD	MD	SD	F	M	VM	W
SBSwk1	VD	MD	SD	F	F	M	VM	W
ICHdk	VD	VD	VD	MD	SD	M	VM	W
ICHmk3	VD	MD	MD	SD	F	M	VM	W
ICHwk2	VD	MD	SD	F	F	M	VM	W
ICHwk4	VD	MD	SD	F	F	M	VM	W
ESSFxv	VD	VD	MD	MD	SD	F	M	W
ESSFdc2	VD	MD	MD	SD	SD-F	M	VM	W
ESSFwk1	MD	MD	SD	F	M	M	VM	W
ESSFwc3	MD	MD	SD	F	M	M	VM	W

Actual Moisture Regime Codes:

ED=extremely dry; VD=very dry; MD=moderately dry; SD=slightly dry; F=fresh; M=moist; VM=very moist; W=wet