



**ECCOCLIMATIC REGIONS OF CANADA**

Scale 1:7 500 000

1989

**LEGEND**

<b>ARCTIC ECCOCLIMATIC PROVINCE</b>	<b>GRASSLAND ECCOCLIMATIC PROVINCE</b>
<b>ECCOCLIMATIC REGIONS</b>	<b>ECCOCLIMATIC REGIONS</b>
MAa Oceanic High Arctic	Gt Transitional Grassland
HA High Arctic	Gs Subhumid Grassland
MA Mid-Arctic	Ga Arid Grassland
LA Low Arctic	
LAm Moist Low Arctic	
<b>SUBARCTIC ECCOCLIMATIC PROVINCE</b>	<b>SUBARCTIC CORDILLERAN ECCOCLIMATIC PROVINCE</b>
<b>ECCOCLIMATIC REGIONS</b>	<b>ECCOCLIMATIC REGIONS</b>
HS High Subarctic	NSCa Alpine Northern Subarctic Cordilleran
MS Mid-Subarctic	NSCb Subalpine Northern Subarctic Cordilleran
MSm Maritime Mid-Subarctic	NSCn Boreal Northern Cordilleran
LS Low Subarctic	MCA Alpine Mid-Cordilleran
LSa Atlantic Low Subarctic	MCa Subalpine Mid-Cordilleran
	MCb Boreal Mid-Cordilleran
	SCa Alpine Southern Cordilleran
	SCb Subalpine Southern Cordilleran
	SCn Boreal Southern Cordilleran
	SCm Montane Southern Cordilleran
	SCm+ Moist Montane Southern Cordilleran
<b>BOREAL ECCOCLIMATIC PROVINCE</b>	<b>INTERIOR CORDILLERAN ECCOCLIMATIC PROVINCE</b>
<b>ECCOCLIMATIC REGIONS</b>	<b>ECCOCLIMATIC REGIONS</b>
HBa Atlantic High Boreal	ICb Boreal Interior Cordilleran
HBm Humid High Boreal	*ICv Ecoclimatic Regions of the Vertically Stratified Interior Cordilleran Map Unit
HBn Maritime High Boreal	*ICa Alpine Interior Cordilleran
HBc Oceanic High Boreal	*ICs Subalpine Interior Cordilleran
HBp Perhumid High Boreal	*ICn Subalpine Transitional Interior Cordilleran
HBs Subhumid High Boreal	*ICm Montane Interior Cordilleran
HBx Most High Boreal	*ICn+ Subhumid Montane Interior Cordilleran
	*ICv+ Grassland Interior Cordilleran
MBa Atlantic Mid-Boreal	
MBm Humid Mid-Boreal	
MBn Maritime Mid-Boreal	
MBc Oceanic Mid-Boreal	
MBp Perhumid Mid-Boreal	
MBs Subhumid Mid-Boreal	
MBx Most Mid-Boreal	
LBa Atlantic Low Boreal	
LBm Humid Low Boreal	
LBn Maritime Low Boreal	
LBc Oceanic Low Boreal	
LBp Exposed Oceanic Low Boreal	
LBs Perhumid Low Boreal	
LBx Subhumid Low Boreal	
LBst Subhumid Transitional Low Boreal	
LBt Transitional Low Boreal	
LBx+ Moist Low Boreal	
<b>COOL TEMPERATE ECCOCLIMATIC PROVINCE</b>	<b>PACIFIC CORDILLERAN ECCOCLIMATIC PROVINCE</b>
<b>ECCOCLIMATIC REGIONS</b>	<b>ECCOCLIMATIC REGIONS</b>
HCTa Atlantic High Cool Temperate	NPg Glaciated North Pacific Cordilleran
HCTb Humid High Cool Temperate	NPa Alpine North Pacific Cordilleran
HCTc Transitional High Cool Temperate	NPb Subalpine North Pacific Cordilleran
MCTa Atlantic Mid-Cool Temperate	NPm Maritime North Pacific Cordilleran
MCTb Humid Mid-Cool Temperate	SPa Alpine South Pacific Cordilleran
	SPb Subalpine South Pacific Cordilleran
	SPm Maritime South Pacific Cordilleran
	SPo Oceanic South Pacific Cordilleran
	SPc Coastal South Pacific Cordilleran
<b>MODERATE TEMPERATE ECCOCLIMATIC PROVINCE</b>	<b>CLIMATE STATION</b>
<b>ECCOCLIMATIC REGION</b>	
HMTh Humid High Moderate Temperate	

**ECCOCLIMATIC REGIONS:** broad areas that are characterized by distinctive ecological responses to climate, as expressed by vegetation and reflected in soils, wildlife, and water.

**ECCOCLIMATIC PROVINCES:** groupings of ecoclimatic regions that show similarities in the ecological responses to climate at a global scale.

Ecoclimatic regions are recognized by comparing the vegetation development (from pioneer to climax) on similar sites (soil, soil moisture, physiography) in different areas. Vegetation development (often indicated by successional trends) is similar on similar sites within the same ecoclimatic region. The intent of this analysis is to screen out the effects of local anomalies (differences in history, soils, physiography, etc.), thereby isolating the total effect of the climate, as the remaining major environmental factor, on the ecosystems.

It follows from the definition that similar vegetation responses can be expected on similar sites within the same ecoclimatic region. Responses to management practices and to the manipulation of vegetation will be similar on comparable sites. Such considerations as rate of growth, regeneration success, competition between species, etc., will be comparable on similar sites within the same region. Ecoclimatic regions should provide a sound ecological framework for natural resource/environmental management.

Ecoclimatic regions are, therefore, not vegetation regions. In certain areas, some non-climatic factors (shallow soils, poor drainage, toxic nutrient levels, etc.) may result in a dominant vegetation that is adapted to these conditions. Vegetation under such conditions will be limited, and will be different from the dominant vegetation of a comparable ecoclimatic region that has a full spectrum of sites.

This approach to ecoclimatic classification assumes that a knowledge base of vegetation development on different sites is available. While a considerable body of such knowledge does exist, this knowledge is fragmentary for many areas. In such cases, the ecoclimatic regions are based on insufficient information. It is anticipated, therefore, that revisions of ecoclimatic region boundaries and their descriptions will be necessary as more knowledge is gained. In this sense, the map of the ecoclimatic regions of Canada is provisional, a first approximation. Comments are, therefore, invited so that we may improve the quality and reliability of the map and descriptions in any future editions.

Ecoclimatic regions are not delineated based on climatic data. One of the reasons is that we lack a solid base of climatic observations for many parts of the country. The main reason, however, is that we lack a full understanding of climate-vegetation relationships. We do not know whether the averages, extremes, or fluctuations of certain parameters are limiting or favouring the vegetation, and what combination of these variable parameters should be measured. This is the reason for using vegetation development to express an integration of climatic influences in the definition of the ecoclimatic regions. Once established, the ecoclimatic regions can be characterized in terms of measured climatic parameters.

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This map and accompanying report were researched and prepared by the **ECOREGIONS WORKING GROUP OF THE CANADA COMMITTEE ON ECOLOGICAL LAND CLASSIFICATION**. The major contributors to this map and report were the following members of the Working Group:

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