

## Land Cover Diversity

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### Abstract

Ecoregions vary in their make up and complexity. Some are relatively uniform in their composition, structure and processes. Others contain extreme variations in relief, soils, climate, vegetation, and species. This map shows the number of land cover types (up to 29 types are possible) per ecoregion.

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While all ecosystems are distinct in their particular combination of components, some specialized component land cover types can be dramatically different from their surroundings. Examples include a wetland, an alpine meadow, or a unique forest.

Ecoregions vary in their make-up and complexity. Some, such as those in the Prairies, are relatively uniform in their composition, structure and processes. Others, such as those in mountainous areas, contain extreme variations in relief, soils, climate, vegetation and species. One measure of diversity at a broad scale is to compare the number of land cover types between ecoregions. The land cover diversity map shows a variety of major cover types and gives an indication of the level of diversity within a particular ecosystem.

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### Map Sources

#### Number of Land Cover Types

Land cover diversity depicts the presence of 29 core land cover types in each of the 194 Terrestrial Ecoregions of Canada. "Core" land cover types were determined by eliminating cover types which occupied an insignificantly small percentage of the ecoregion and were believed to be classification errors (for example cropland in Arctic). Land cover was classified from Advanced Very High Resolution Radiometer sensor (AVHRR) data recorded onboard a NOAA satellite in 1995. Raw data has a spatial resolution of 1.1 km.

### Related Web sites (1999 – 2009)

#### Federal Government

Environment Canada. State of the Environment Infobase

<http://www.ec.gc.ca/soer-ree/>

The State of the Environment (SOE) Infobase was originally developed in 1996 as an interactive and convenient mechanism for presenting a number of environmental

reporting products and tools, including The State of Canada's Environment 1996 and Canada's National Environmental Indicators Series 2003.

Environment Canada. State of the Environment Infobase. National Environmental Indicator Series Archives. Sustaining Canada's Forests: Forest Biodiversity. Issue Context

[http://www.ec.gc.ca/soer-ree/English/Indicators/Issues/For\\_Bio/Bulletin/fb\\_iss\\_e.cfm](http://www.ec.gc.ca/soer-ree/English/Indicators/Issues/For_Bio/Bulletin/fb_iss_e.cfm)

Forest biodiversity (or biological diversity) is more than an inventory of the different types of ecosystems, species, or genes.

Natural Resources Canada. Canada Centre for Remote Sensing. Research and Development. Applications. Land Cover

[http://www.ccrs.nrcan.gc.ca/ccrs/rd/apps/landcov/landcov\\_e.html](http://www.ccrs.nrcan.gc.ca/ccrs/rd/apps/landcov/landcov_e.html)

At the Canada Centre for Remote Sensing, scientists are developing cost-effective and automated methods using satellite imagery, ancillary data, and in situ data that produce nationally consistent products, which represent the land cover and other land surface information.

## **Other**

United States Government. National Aeronautics and Space Administration.

<http://lcluc.gsfc.nasa.gov/>

Land Cover Land Use Change Program

International Government

Food and Agriculture Organization of the United Nations. Sustainable Development Department

<http://www.fao.org/waicent/faoinfo/sustdev/EIdirect/EIre0041.htm>

Remote Sensing Centre Series. AFRICOVER land cover classification