

Wetland Diversity

Abstract

Wetlands are lands where water saturation is the dominant factor. Wetlands occupy about 18% of Canada, and Canada has about 25% of the world's wetlands. Wetlands foster the growth of hydrophytic vegetation and other biological activities such as the sustenance of large numbers of waterfowl, storage and release of large quantities of water, and the production of large amounts of energy in the form of peat. They offer food and shelter, slow down soil erosion, and contribute to the natural water purification process. Wetland conservation is important particularly in the human-dominated ecozones of southern Canada.

Wetlands, as the name implies, are lands that are nearly always wet. Wetlands occupy about 18% of Canada and Canada possesses about 25% of the world's wetlands. Wetlands filter the water that passes through them of sediment and contaminants. They help recharge groundwater supplies and hold a good proportion of near-surface carbon. Wetlands also provide habitat for a great variety of species, particularly waterfowl. This map shows the concentration of wetlands among Canada's ecoregions.

Wetland Conservation

Wetland conservation is important particularly in the human dominated ecozones of southern Canada where native wetlands have been largely drained or otherwise altered. Wetland conservation is occurring through private and public efforts. The largest wetland conservation initiative is the North American Waterfowl Management Plan (NAWMP), an agreement originally signed in 1986 by Canada and the United States and updated in 1994 to include Mexico. The North American Waterfowl Management Plan is an innovative partnership program implemented and financed through joint venture partnerships involving federal, state, and provincial/territorial government agencies, non-government organizations, the private sector, and landowners. All provinces and territories are represented.

NAWMP aims to restore waterfowl populations in North America to 1970's levels by securing, enhancing, and managing wetland and upland habitat across the continent. A major objective of NAWMP is to achieve and maintain a breeding population of 62 million ducks which could produce a fall flight of 100 million waterfowl. The Plan also aims at maintaining wintering populations of 6 million geese and 152 000 swans. In Canada alone, the goal is to secure and enhance a minimum of 2 million hectares of wetlands, the majority in the Prairie ecozone. By the end of 1996, 28 percent of NAWMP's habitat objectives in Canada had been met. Over half a million hectares of wetlands and uplands habitat were secured and enhanced in Canada and an

additional 2 million hectares had their use modified to support the objectives of NAWMP.

Although the primary focus of the North American Waterfowl Management Plan is the conservation of wetlands and upland habitat to support waterfowl populations, activities benefit a range of other resources such as water, plants and other wildlife species. For example, NAWMP conservation activities make a substantial contribution to the health of the entire ecosystem, including endangered species such as the piping plover.

Map Sources

Percentage Area in Wetlands

Map depicts the density of wetlands, by each original (circa 1985) Ecodistrict of Canada. Wetland density was measured from visual interpretation of Landsat imagery and other available sources and applied to each ecodistrict. Lands Directorate, Environment Canada.

Related Web sites (1999 – 2009)

Federal Government

Environment Canada. Canadian Wildlife Service. Hinterland Who's Who
http://www.hww.ca/index_e.asp

This is where you'll find in-depth descriptions of wildlife, discussions on issues, actions that you can take to help wildlife, and educational materials that teachers and group leaders can use.

Environment Canada. Freshwater Website. The Nature of Water. Wetlands
http://www.ec.gc.ca/water/en/nature/wetlan/e_wetlan.htm

Environment Canada. Ontario Region. Wetlands of Ontario
<http://www.on.ec.gc.ca/wildlife/wetlands/intro-e.cfm>

The Ontario Region of Environment Canada delivers national programs tailored to respond to regional and local issues; implements Great Lakes 2000 and the Canada-Ontario Agreement (COA) Respecting Great Lakes; and represents Environment Canada corporately, in binational, national, regional and local partnerships.

Other

Duke University Wetland Center
<http://www.nicholas.duke.edu/wetland/index.html>

The goal of the Duke University Wetland Center is to provide sound scientific knowledge that will lead to sustainable wetland functions and values for the nation and the world.

United States Government. Environmental Protection Agency. Office of Wetlands, Oceans, and Watersheds

<http://www.epa.gov/owow/>

The Office of Wetlands, Oceans, and Watersheds (OWOW) promotes a watershed approach to manage, protect, and restore the water resources and aquatic ecosystems of our marine and fresh waters.

University of Guelph. Canada's Aquatic Environments. Wetlands

<http://www.aquatic.uoguelph.ca/wetlands/wetlandframes.htm>

Canada's Aquatic Environments was produced by the CyberNatural Software Group at the University of Guelph.

International Government

The Ramsar Convention on Wetlands

http://www.ramsar.org/cda/ramsar/display/main/main.jsp?zn=ramsar&cp=1_4000_1___

The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.