
Facts about the Niagara Escarpment

The Niagara Escarpment is a major land feature in Wisconsin affecting water quality, biodiversity, and influencing decisions about development.

Did you know that, in Wisconsin...

- The Niagara Escarpment extends for a distance of over 230 miles (Martin, 1965).
- The cuesta dips down at about a 10-degree angle, generally towards the east. In Door County the cuesta dips an average of 3 degrees.
- The Ledge rises up to 200 feet high in some places, but the maximum thickness of this rock layer is 450 to 800 feet depending upon the location.
- Fossils found on the Ledge include brachiopods, cephalopods, crinoids, and corals. Also, a part of a giant squid-like fossil was found in a Mayville (Dodge Co.) quarry that is more than 33 feet long!
- The Ledge is home to the second oldest native forest in North America.
- The Niagara Escarpment corridor is home to the most underground caves anywhere within the State of Wisconsin! It also hosts the 2nd and 3rd longest known cave systems in the State!
- A total of seven waterfalls are known to exist along the Escarpment corridor. Several of these are open and accessible to the public for viewing.
- The Niagara Escarpment is home to thousands of springs, seeps, and vernal water pools, all of which contribute to the creation and sustenance of its unique cliff face habitats.
- The Escarpment Corridor contains over 241 documented occurrences of rare species and natural communities, including the Dwarf Lake Iris, Bulblet and Fragile Ferns, Hines Emerald dragonfly, Glacial Relict Snails (Midwest Pleistocene *Vertigo* and *Cherrystone* Drop are endangered species) and even 1,000+ year old white cedar trees! (Source: WDNR, 2002)
- The Niagara Escarpment corridor houses one of the largest bat hibernacula in the entire Midwest! Over 50,000 bats are known to hibernate in the Neda Mine.
- The Niagara Escarpment corridor holds numerous clues to the past, including Native American petroglyphs, pictographs, effigy mounds.
- The Niagara Escarpment's groundwater resources are very sensitive due to the highly fractured rock and thin

soils. Between 2002 and 2007, over 30% of the private wells tested within Calumet County were found contaminated with coliform bacteria!

- The Niagara Escarpment creates an environment for some of the highest average wind-speeds within the State.
- The Niagara Escarpment has been well documented by the citizens of Wisconsin in the WDNR's Wisconsin Land Legacy Report as a landscape of significant importance to the natural and cultural heritage of the State.

More internationally...

- The rock of the escarpment is primarily limestone and dolomite that formed 420 million years ago when shallow, salt water seas covered this part of North America.
- It was recently discovered that some of the rock comprising the Escarpment contains groups of microscopic organisms living between rock layers that are similar to those found only in Antarctica and the Colorado Plateau and may be the closest thing on earth to the fossil organisms found in Martian meteorites.
(Source: <http://www.burlingtonnews.net/theledge.html>)
- The Niagara Escarpment contains natural communities and rare plants/animals that are restricted to or strongly associated with the near vertical or horizontal exposures of the Escarpment. Such as alvars, caves, sinkholes, talus slopes, and rock ledges and moist cliff faces.
- Alvars are a globally rare community found in North America only along the shores and near-shore areas of the Great Lakes. Most of these alvars are associated with the Niagara Escarpment's geology.
- Numerous migratory birds use the Escarpment in some way during their spring and fall migrations due to the highly visible shoreline and cliff faces
- The portion of the Escarpment occurring in Ontario Canada has been designated as a World Biosphere Reserve by the United Nations Education, Scientific and Cultural Organization (UNESCO).
- The Escarpment may be home to the oldest tree in the world, an eastern white cedar. It is estimated to be over 1,200 years old, and it exists due to the unique conditions created by the Escarpment.



Additional Resources

See these documents for more information about the Niagara Escarpment:

- *An Inventory and Assessment of the Resources of the Niagara Escarpment in Wisconsin* – A 2001 report by the Bay-Lake Regional Planning Commission which characterized the unique aspects and resources of the corridor.
- *The Niagara Escarpment: Inventory Findings 1999-2001 and Considerations for Management* – A follow-up study conducted by the WDNR in 2002 which found significant populations of a variety of state and nationally designated endangered and rare flora and fauna species that are directly related to the hydrology (groundwater and bedrock structure) and existence of moist cliff face communities associated with the Escarpment.
- *Wisconsin Land Legacy Report: An Inventory of Places to Meet Wisconsin's Future Conservation and Recreation Needs* – Produced by the WDNR in 2006, this report contains hundreds of stunning maps, photos, graphs and text, the report describes the special places in Wisconsin that will be critical to meet conservation and recreation needs for the next fifty years. Identified over a three-year process involving the public, non-profit organizations, and natural resource professionals, these Legacy Places are, collectively, what “makes Wisconsin, Wisconsin”

Here are some websites to check out for more information about the Niagara Escarpment and some of its unique features and qualities:

- Weis Earth Science Museum: <http://www.uwfox.uwc.edu/wesm/>
- Wisconsin Department of Natural Resources, Endangered Resources: <http://www.dnr.state.wi.us/ORG/land/er/>
- Wisconsin Speleological Society (Caves!): <http://www.caves.org/grotto/wss/>
- UW-Green Bay Professor Steve Dutch's Geology Webpage: <http://www.uwgb.edu/DutchS/geolwisc/geowisc.htm>
- Wisconsin Geological & Natural History Survey (WGNHS): <http://www.uwex.edu/wgnhs/>
- Ledgeview Nature Center (Calumet County): http://www.co.calumet.wi.us/departments2.iml?dept_id=70
- Door County Land Trust: <http://www.doorcountylandtrust.org/>
- Northeast Wisconsin Land Trust (NEWLT): <http://www.newlt.org/>
- Glacial Lakes Conservancy (land trust): <http://65.181.145.109/>
- Lakeshore Natural Resources Partnership: <http://www.lnrp.org/index.php>
- Horicon Marsh: <http://www.enjoyhoriconmarsh.com/>
- Wisconsin Groundwater Protection and Comprehensive Planning Information: <http://www.wi.water.usgs.gov/gwcomp/>
- U.S. Fish & Wildlife Service – Great Lakes Region (Region 3): <http://www.fws.gov/midwest/>
- Bay-Lake Regional Planning Commission: <http://www.baylakerpc.org/>
- East Central Wisconsin Regional Planning Commission: <http://www.eastcentralrpc.org>
- Niagara Escarpment Commission (our friends in Ontario, Canada): <http://www.escarpment.org/>
- See our own website at: <http://www.escarpmentnetwork.org>

