



# Sources of Knowledge Newsletter

Sharing Perspectives on the Natural and Cultural Heritage of the Bruce Peninsula

Like us on Facebook at:

[www.facebook.com/sourcesofknowledge/](http://www.facebook.com/sourcesofknowledge/)

Follow us on our website at:

[www.sourcesofknowledge.ca](http://www.sourcesofknowledge.ca)

## Fall 2013 Update

The Sources of Knowledge Board has been busy planning next year's Forum. Circle **May 2-4, 2014**, on your calendar and be prepared for another great opportunity to hear interesting presenters and share good discussions. The theme is "Beneath the Waves" and activities will focus on exploring below the water's surface. Sessions will take us from understanding lake-bottom mapping techniques to exploring ancient shorelines. The session topics and speakers are still being firmed up, so check out our website periodically to get the latest updates.

Announcements about program and registration will be made via the website, Facebook and Peninsula Press articles.

## New Board Members

The Sources of Knowledge Board has been strengthened by the recent addition of four members. Joining the dedicated team are John Francis, Gord Beal, Cherie-Lee Fietsch, and Tom Boyle.

## Expanded Website

New features have been added to the Sources of Knowledge website. We are now displaying local weather and lake level data. The weather data come from Vice-Chair Bill Caulfeild-Browne's weather station in Big Tub Harbour, the lake level data from the Canadian Hydrographic Service for Tobermory. The graphs display the past month. Water temperature will be added in the spring.

## The Great Arc as a Conservation Planning Tool

Our keynote speaker at last year's Forum, Jeff Grey from the Thunder Bay National Marine Sanctuary in Alpena, Michigan, reminded participants that many of the issues we face on this side of the border are also challenges on the US side. Both countries are working to protect the same lakes and similar natural environments.

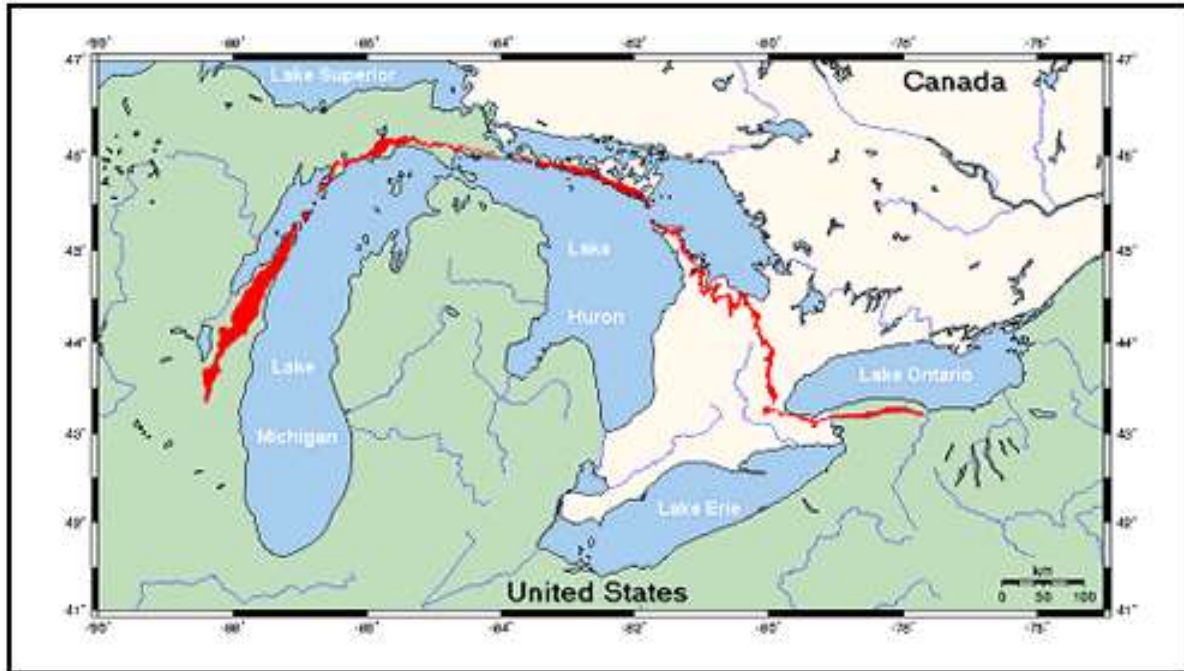
The Great Arc is a concept that tries to make specific ties between people, organizations and agencies for the purposes of building conservation and sustainable development strategies among the states bordering on the Great Lakes and Ontario. Sources of Knowledge board member Gordon Nelson has played a key role in advocating for this strategy.

The Great Arc initiative gets its name from the geological landform that links the Great Lakes. The Niagara Escarpment that we know so well in our area begins in New York state, travels across southern Ontario, up the Bruce Peninsula, briefly dips below the water to reappear on Manitoulin Island, then arcs across the Upper Peninsula of Michigan and down to make up the Door Peninsula of eastern Wisconsin. The cliffs are an important landscape feature along this 1600 km arc as it shapes water bodies and stream directions.

The Niagara Escarpment was formed through the differential erosion of slightly tilted rock layers that are part of the Michigan Basin. This nearly circular geological basin is centred on the Lower Peninsula and is composed of subsided sedimentary rock layers formed 400-450 million years ago.. Harder layers of limestone and dolomite resisted erosion while softer layers of shale were removed. This left a steep cliff or cuesta that defines the Niagara Escarpment.

# Sources of Knowledge Newsletter

Sharing Perspectives on the Natural and Cultural Heritage of the Bruce Peninsula



Source: Niagara Escarpment Resource Network

This landform helped to create the unique growing and living conditions that we see so clearly on the Bruce Peninsula. The combination of tall cliffs, huge bodies of water, prevailing westerly winds, thin soils over limestone rock, and glacial erosion and deposition elements gives the whole length of the Niagara Escarpment unique characteristics. For example, it is home to over 240 rare, threatened or endangered species and is a groundwater recharge area, important for the health of the waterways across the whole region. Because of its unique characteristics this area can be considered a bioregion.

There are common historical and cultural characteristics across the area, centred on the use of the area's natural resources and shipping activities. According to Gordon Nelson, "the Great Arc has many distinctive hydrologic, biological, recreational, land use, cultural and other characteristics".

Both sides of the Great Arc face similar conservation issues. These include:

- groundwater contamination

- invasive species
- disruption of sensitive environments
- recreational overuse
- quarrying
- land use conflicts
- development impacts
- water quality concerns

While there are conservation efforts on both sides of the border, including protecting ecosystems through national parks, there is not a bi-national approach to planning. The shared characteristics and issues suggest that a co-operative approach to planning conservation and management efforts would produce beneficial results.

For an organization located at the tip of the Bruce Peninsula mandated to share ideas about the physical and human environments, the Great Arc concept is compelling for Sources of Knowledge. No doubt it will continue to inform our decision-making and activities in the future.