



LAKE HURON BINATIONAL PARTNERSHIP

2011 Annual Report

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What is the Lake Huron Binational Partnership?

The Lake Huron Binational Partnership was formed in 2002 to meet commitments in the Canada-U.S. Great Lakes Water Quality Agreement for lakewide management, by prioritizing and coordinating environmental activities within the Lake Huron Basin.

The Partnership facilitates information sharing and priority setting for binational environmental protection and restoration. It promotes a flexible membership and the development of broader partnerships to undertake efforts, on an issue by issue basis, that cannot be accomplished by individual agencies alone.

The U.S. Environmental Protection Agency, Environment Canada, Michigan Department of Natural Resources and Environment and the Ontario Ministries of Environment and Natural Resources form the core of the Partnership which also includes all levels of government, Tribes/First Nations, non-government organizations and the public.

Overview

The Lake Huron Binational Partnership is an effort that focuses in on key priorities and on the ground actions that help to improve and protect the overall quality of Lake Huron.

The Partnership's 2011 Annual Report provides information on the following topics:

- Accomplishments: Developing an International Biodiversity Conservation Strategy, the Shiawassee National Wildlife Refuge Wetland Restoration Project, setting priorities for the future, and the creation of the Lake Huron Southeast Shore Executive Committee;
- Challenges: Lake Huron biodiversity conservation, Botulism outbreak in southern Georgian Bay, and recent results of the Upper Great Lakes Water Level Study;
- Next Steps: Planning for actions in 2011 and the 2012 cooperative monitoring year;
- Special Events: Events scheduled over the next year; and,
- Contacts: Information on how to obtain more detailed information on any of the activities of the Partnership.

The partners involved in protecting and restoring Lake Huron hope that you find this brief report informative and interesting, but encourage you to learn more about the lake and the collaborative approach to understanding its ecosystem, protecting high quality areas and restoring those areas that have been degraded. For more information visit www.binational.net. ♦



Shoreline of Iroquois Bay, home to one of only two remnant lake trout populations in Lake Huron.
Credit: Dave Reid, Ontario Ministry of Natural Resources.



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Accomplishments

Developing an International Biodiversity Conservation Strategy for Lake Huron

A two-year planning process involving over 400 individuals and more than 100 organizations and institutions resulted in the completion of *"The Sweetwater Sea: An International Biodiversity Conservation Strategy for Lake Huron"*. One of the most significant accomplishments of this collaborative effort was rallying scientists, conservation practitioners, and agencies to discuss and define biodiversity conservation needs for Lake Huron.

Expert input and GIS spatial analysis were combined to develop maps that illustrate a basin-wide coastal development footprint, ecological significance of priority conservation features, and the level of conservation capacity. This information was integrated to map important areas of biodiversity for protection and restoration. Resource managers and conservation practitioners now have greater insight and guidance on where to implement 21 priority conservation strategies that address five critical threats and seven conservation features that represent the full suite of biodiversity.

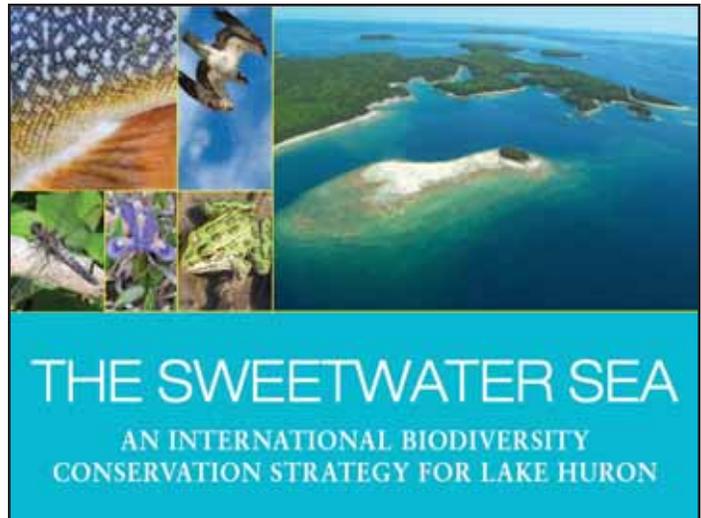
The Lake Huron Binational Partnership will use this multi-stakeholder effort as a reference to establish a 5-year implementation workplan. Conservation organizations and practitioners are encouraged to use the report to:

- Identify and refine local and regional priorities for conservation action and funding;
- Support applications to fund protection or restoration of native biodiversity;
- Incorporate strategy recommendations into local and regional plans;
- Contact a member of the coordinating organizations to access GIS data to inform mapping and planning in your local area; and,
- Identify research interests, emerging management issues and monitoring priorities

A full copy of the report and an abridged version are available at: <http://conserveonline.org/workspaces/lakehuron.bcs/documents>.

Shiawassee National Wildlife Refuge Wetland Restoration Project

In 2008, Ducks Unlimited, the Saginaw Bay Watershed Initiative Network, and Shiawassee National Wildlife Refuge partnered to begin restoring a 57- hectare (141-acre) agricultural field at the Refuge to a managed moist soil emergent wetland. In 2011, the Refuge will open an auto tour route which will allow refuge visitors the unique opportunity to commute



Cover Page of Lake Huron Biodiversity Conservation Strategy.
Credit: Lake Huron Biodiversity Conservation Strategy Core Team.

throughout the refuge. The new auto tour route passes adjacent to the protected site and will allow visitors to view the restored wetland and the wildlife using it. This project was funded by a US\$99,750 Great Lakes Restoration Initiative (GLRI) grant via the Upper Mississippi River/Great Lakes Region Joint Venture, and US\$30,000 from the Saginaw Bay Watershed Initiative Network, awarded to Ducks Unlimited. This represents the first habitat restoration project completed under the GLRI.

Binational Partners Setting Priorities for the Future

On October 4-6th 2010, a "Lake Huron Partners" meeting was held in Tobermory, Ontario. Approximately 50 participants from Canada and the U.S. reviewed the activities since 2007; began the process of determining Lake Huron's monitoring requirements for the 2012 Coordinated Science and Monitoring Initiative (CSMI); and helped set the course for the Partnership activities for the next five years.

Lake Huron Southeast Shore Executive Committee Created

A renewed effort on the Canadian Lake Huron Southeast Shore area has begun with the creation of the Lake Huron Southeast Shore Executive Steering Committee. This Committee is comprised of various government agencies and local resource managers who will work together to provide direction and support of action plans to address key issues within the Lake Huron Southeast Shore area which runs from Sarnia in the south to Tobermory in the north. The area has been identified as a domestic priority under the Partnership, as well as a priority area under the 2010-2011 Canada-Ontario Agreement extension, and as part of the provincial *Healthy Great Lakes, Strong Ontario Strategy*.



Programs Providing Funds to Take Action on Great Lakes

Through the Great Lakes Restoration Initiative (GLRI), funding is provided to state, local governments, tribes, academia and non-profits for projects ranging from improving nearshore water quality, to habitat restoration and beach monitoring. For more information on GLRI go to: <http://greatlakesrestoration.us>.

In Canada, LaMP objectives are supported through projects delivered under the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (COA). For an overview of recent successes and accomplishments that have taken place, as well as challenges that are being faced under COA, go to <http://www.ec.gc.ca/greatlakes>, click on Canada-Ontario Agreement, and then *Keeping the Great Lakes Great* under 2007-2010 COA. ♦



Walleye from Severn Sound.
Credit: Ontario Ministry of Natural Resources.

Challenges

Lake Huron Biodiversity in "Fair" Condition

The health of Lake Huron's biodiversity is in "fair" condition according to *The Sweetwater Sea: An International Biodiversity Conservation Strategy for Lake Huron*. Conservation challenges include managing critical threats such as non-native aquatic and terrestrial species; incompatible housing/urban development and shoreline alteration; climate change; dams; and pollution from non-point sources due to agriculture, forestry and urban land uses.

Managing these threats and implementing priority conservation strategies will require cooperation and alignment of management agencies, conservation organizations, and the public across political, environmental, social, and economic boundaries. This will be particularly challenging given the basin's size and regional differences in ecology, geology, water chemistry, shoreline configuration, climate, and land uses.

Botulism Outbreak in Southern Georgian Bay

Type E botulism (*Clostridium botulinum*) outbreaks have occurred intermittently in the main basin of Lake Huron since 1998. These outbreaks have generally occurred in the fall and have often resulted in mortalities of migrating water birds and benthic fish species. The proliferation of dreissenid mussels

has been implicated in the creation of oxygen-less (anoxic) environments favoured by *C. botulinum* bacteria. Consumption of mussels by round gobies has been suggested to facilitate the transfer of toxin produced by *C. botulinum* bacteria up the food chain.

An outbreak of type E botulism occurred in southern Georgian Bay in the fall of 2010. This is the first incidence of a botulism outbreak in Georgian Bay. Lake sturgeon mortalities were observed in the vicinity of the mouth of the Nottawasaga River, while gulls and common loon mortalities were also a consequence of the outbreak. Lake sturgeon's recent listing as a threatened species has heightened concern over these mortality events. The situation will be watched closely in the coming years.

Upper Great Lakes Water Level Study

Members of the International Upper Great Lakes Study Board have been examining historical data on the variability of water supplies and outflows in the Great Lakes, including Lake Huron. They are also collecting new information about the impacts of fluctuating levels on key interests, so that a new regulation plan can provide additional benefits including an adaptive management framework for coping with climate change. The study board is preparing for extensive public outreach this summer.

There are two reports in process: one on the results of an exploratory investigation into options for restoring water levels in lakes Michigan and Huron, and the second, a recommendation for an upgraded regulation plan for Lake Superior outflows.

The Study Board aims to garner wider participation and input on the results of its water restoration investigation and regulation proposal. They are using their website as a portal for information related to the study. You can find more information at: www.iugls.org, under "Highlights." ♦

Next Steps

Exciting Times Ahead

- Upcoming activities taking place on Lake Huron include:
- Finalizing plans for 2012's year of intensive monitoring;
 - Implementing activities recommended by the Biodiversity Conservation Strategy and to promote local community action throughout the basin;
 - Strategically engaging local stakeholders in planning, zoning audits, legal analyses, workshops, and a Saginaw Bay watershed conference led by the Michigan State University's Land Use Policy Institute with the goal of building local capacity in the Saginaw Bay watershed; and,
 - Developing local watershed plans for priority watersheds in the area of Lake Huron's southeast shore led by the Lake Huron Southeast Shore Working Group. ♦

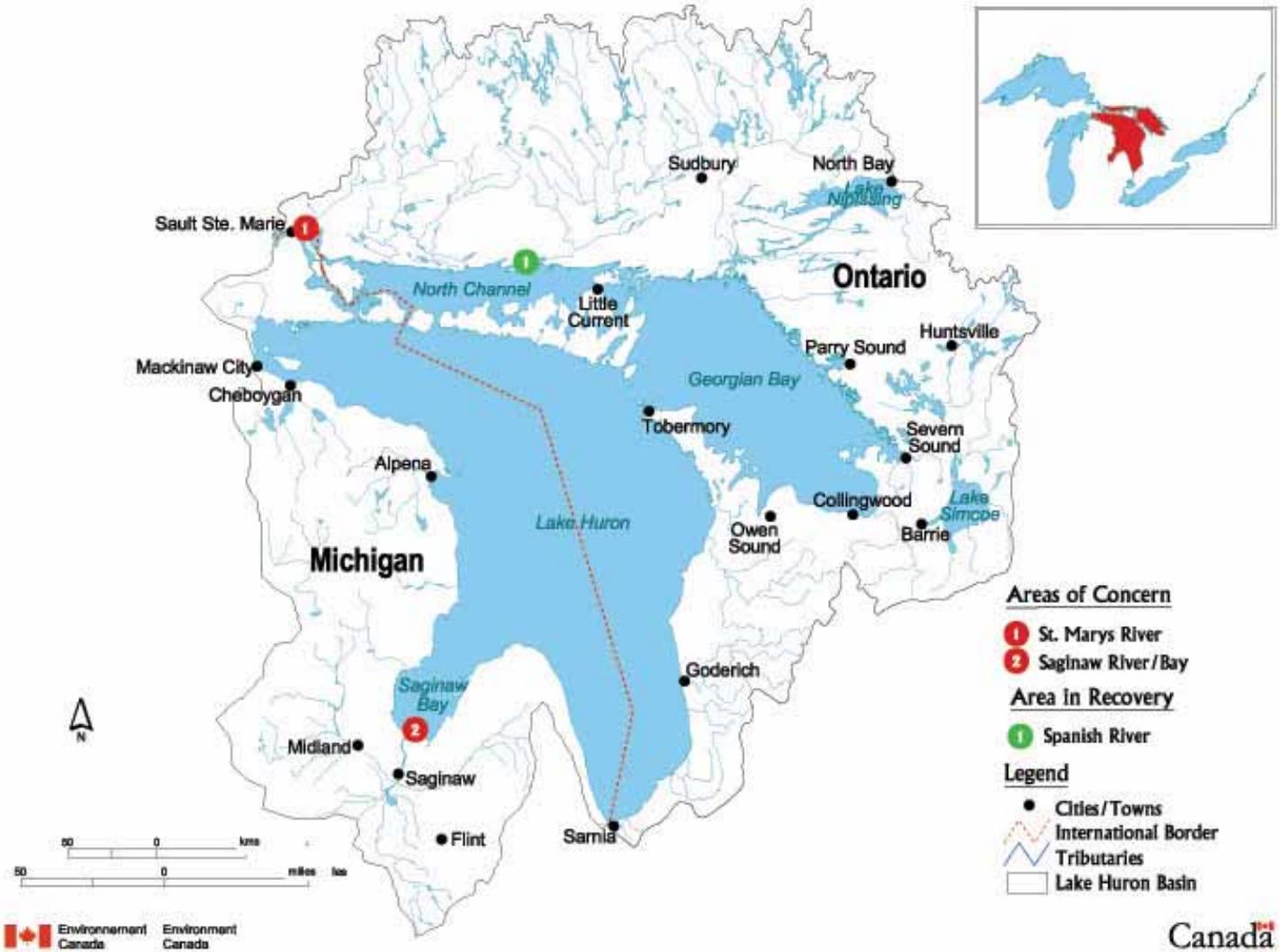


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Lake Huron Basin

The Lake Huron drainage basin is defined by an expansive watershed and abundance of shoreline habitat. Lake Huron has over 30,000 islands and, as a result, has the longest shoreline of any lake in the world.



Special Events

Great Lakes & St. Lawrence Cities Initiative Conference

Niagara Falls ON - June 15-17, 2011

For more information go to:

<http://www.glscli.org>

State of the Lakes Ecosystem Conference

Erie PA - October 26-27, 2011

For more information go to:

www.solecregistration.ca

For More Information:

For more information, please visit our website at www.binational.net or contact:

In Canada:

Janette Anderson

Environment Canada

Phone: (905) 336-6277

Fax: (905) 336-6272

E-mail: greatlakes-grandslacs@ec.gc.ca

In the United States:

James Schardt

U.S. Environmental Protection

Agency

Phone: (312) 353-5085

Fax: (312) 353-2018

E-mail: schardt.james@epa.gov