

LAKE SIMCOE SCIENCE ADVISORY COMMITTEE

The McGuinty government has appointed a committee to advise on how best to protect and improve the Lake Simcoe ecosystem. The 10 members are experts in the water quality and ecology of lakes and their basins, and the impacts of surrounding urban and agricultural uses.

The committee's advice will help ensure that the Lake Simcoe protection strategy is based on the best available science. Using their expertise and current Lake Simcoe science, the group will:

- consider the present state of the lake and its watershed
- consider pressures on the system now and in the future
- identify ecosystem features that need protection
- advise on appropriate management

They will also advise on a monitoring plan to support the protection strategy.

Co-chairs Dr. Peter Dillon and Dr. Jennifer Winter, both highly respected scientists in their fields, are very knowledgeable about Lake Simcoe.

MEMBERS

Dr. Peter Dillon – Co-chair

Dr. Dillon is an internationally recognized limnologist with over 25 years of experience in the field. His research specializes in the biogeochemistry of lakes and their catchments. He currently holds a Canada Research Chair in Watershed Biogeochemistry at Trent University and is the Director of the university's Worsfold Water Quality Centre. He is a member of the Royal Society and a recent winner of the Miroslaw Romanowski Medal for environmental science. He is actively involved in research on Lake Simcoe.

Dr. Jennifer Winter – Co-chair

Dr. Winter directs Ministry monitoring programs that focus on nutrients, algal communities and associated issues in inland lakes and the Great Lakes, and has been the lead research scientist for Lake Simcoe since 2001. Her research interests include the influences of human activities on aquatic ecosystems and the modeling of nutrient loading to rivers and lakes. She is currently a member of the Special Graduate Faculty at the University of Guelph, an Honorary Research Associate with Trent University and Adjunct Assistant Professor at the University of Waterloo. Dr. Winter is a co-chair of a special session on Lake Simcoe to be held at the 2008 International Association of Great Lakes Research Conference at Trent University, Ontario in May.

Dr. David O. Evans

Dr. Evans is currently a senior research scientist with the Ministry of Natural Resources with 30 years of fisheries research experience on Lake Simcoe. He

leads a research and adaptive management program related to sustainable fisheries, conservation of sensitive aquatic species and ecosystems, rehabilitation of healthy ecosystems, integrated watershed planning, source water protection, and assessment of climate change impacts on aquatic ecosystems. He is a Past President of the Canadian Aquatic Resource Section of the American Fisheries Society.

Dr. Bahram Gharabaghi

Dr. Gharabaghi's research has been primarily focused on watershed scale water quality models to improve the accuracy of calculations of these management tools for the protection of source waters from further degradation, and to develop effective strategies for improvement of the quality of impaired water bodies in Ontario. He has over 10 years of experience in research and development in hydrologic modelling and non-point source pollution control in Canada and internationally. Dr. Gharabaghi is currently an Assistant Professor at the University of Guelph in the School of Engineering.

Dr. Stephanie Guildford

The focus of Dr. Guildford's research has been environmental factors that control the health of water bodies, such as research on the impact of zebra mussels on near shore processes in Lake Simcoe. This research includes assessment of the near shore phosphorous shunt, changing water quality and energy flow and its effects on aquatic plant growth. Until September 2007, she was Research Assistant Professor at University of Waterloo and continues this affiliation as Full Adjunct Assistant Professor. As Assistant Professor at the Large Lakes Observatory at the University of Minnesota Duluth she remains committed to work on Lake Simcoe and the Lower Great Lakes. Dr. Guildford is a co-chair of a special session on Lake Simcoe to be held at the 2008 International Association of Great Lakes Research Conference at Trent University, Ontario in May.

Dr. David Barton (Alternate for Dr. Guildford)

Dr. Barton is a Professor in University of Waterloo's Biology Department. His research field is applied aquatic ecology and he is a co-investigator with Dr. Stephanie Guildford on the project assessing the impact of dreissenid mussels on the nearshore zone processes of Lake Simcoe.

Dr. John Gunn

Dr. Gunn is the Canada Research Chair in Stressed Aquatic Systems at Laurentian University. He is a fisheries scientist by training, and worked as a research scientist with the Ministry of Natural Resources for 27 years before joining Laurentian University in 2003. He studies the effects of acid rain, climate change, and a variety of other environmental factors on coldwater fish communities and is now leading a team of researchers in the study of the effects of multiple stressors on Canadian Shield ecosystems. He is also investigating the recovery processes that operate once stressors are removed.

Dr. Lewis Molot

Dr. Molot is a Professor with the Faculty of Environmental Studies at York University. He has been studying the biogeochemistry of lakes for 25 years. He has been involved in long-term studies of the effects of cottage development, acidification, climate change and ultraviolet radiation on lakes in the Dorset, Ontario area. His research focuses on studying movement and subsequent fate of dissolved organic carbon, iron and phosphorus as they are exported from catchments to streams and lakes and their subsequent impacts on lakes. He is currently studying the photochemical mechanisms that transfer organic carbon to lake sediments and inorganic carbon to the atmosphere from lakes in an effort to better understand the role of freshwater systems in regional carbon budgets. For several years, he has been studying the role of iron in co-promoting blooms of nuisance cyanobacteria in eutrophic waters. Prof. Molot is also chair of the Ontario EcoSchools program, a program for school boards on energy conservation and climate change.

Dr. Ivan O'Halloran

Dr. O'Halloran's research efforts have mainly focused on the impact of agricultural practices on nitrogen and phosphorus in agro-ecosystems. He has directed his research towards improving nutrient use efficiency in agricultural systems and reducing undesirable nutrient losses from agricultural lands. Dr. O'Halloran is currently an Associate Professor at the Ridgetown Campus, University of Guelph. He also serves as the Research Coordinator for the Nutrient Management Joint Research Program that was initiated in 2005 by the Ministry of Agriculture Food and Rural Affairs and the Ministry of Environment.

Dr. Justina Ray

Dr. Ray is the Executive Director of Wildlife Conservation Society Canada. Her research focuses on the ecology and conservation of large mammals. She has been particularly interested in the role of shifting landscapes in biodiversity decline or changes in forested ecosystems. These issues include quantifying the impacts of development activities on biodiversity, the sustainable management of forests, and global issues in forest carnivore conservation. Her current focus is research and policy implications associated with conservation planning, particularly in the large remote landscapes of Canada's northern boreal forests. She is an Adjunct Professor at the Faculty of Forestry, University of Toronto, and a Research Associate at the Center for Biodiversity and Conservation Biology at the Royal Ontario Museum. She is lead editor of the book *Large Carnivores and the Conservation of Biodiversity* (Island Press, 2005) and co-editor of the forthcoming *Noninvasive Survey Techniques for North American Carnivores* (Island Press, 2008). In 2006-7, she served on the Endangered Species Act Review Advisory Panel for the Ontario Ministry of Natural Resources through to the passage of a new Act in May 2007.

Dr. Cynthia Wesley-Esquimaux

Dr. Wesley-Esquimaux is a University of Toronto Assistant Professor, jointly appointed to the Department of Aboriginal Studies and the Faculty of Social Work. She has dedicated her life to building bridges of understanding between people. She has a particular interest in developing creative solutions to complex social issues and sees endless merit in bringing people from diverse cultures and backgrounds together for engaging in practical dialogue. Dr. Wesley-Esquimaux lives and does her writing on the Georgina Island First Nation in Lake Simcoe, and has a long-standing commitment to seeing the lake and its watershed protected for future generations.

LEARN MORE

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