

the Currency of Ecology



A.D. LATORNELL
CONSERVATION SYMPOSIUM



2010



Currency of Ecology

2010

A healthy environment builds a strong and lasting economy and a healthy society.

This calendar is printed in conjunction with the A.D. Latornell Conservation Symposium, one of Ontario's premier environmental events.

The theme of the 16th annual A.D. Latornell Conservation Symposium - **The Currency of Ecology** - pays tribute to the important role our environment plays in helping to sustain a healthy economy and quality of life. Protecting, restoring and enhancing our wetlands, lakes, rivers, streams, forests and biodiversity to build a more resilient world is important today and for the future.



UNIVERSITY
of GUELPH



ARTHUR D. LATORNELL
FORWARD THINKER
& DEDICATED
CONSERVATIONIST
(1923 - 1991)

The Symposium is held in the memory of Arthur Douglas Latornell (1923 - 1991), a leading conservationist whose tireless dedication to the grass roots conservation movement in Southern Ontario fostered a legacy of environmental milestones for years. Mr. Latornell was also a strong supporter of young conservation professionals.



december 2009



november 2009

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january 2010

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	Winter Begins			Christmas Eve	Christmas	Boxing Day
27	28	29	30	31 		
				New Year's Eve		

 FULL MOON
  LAST QUARTER
  NEW MOON
  FIRST QUARTER

Why Do We Need A Healthy Environment?

- To clean the air we breath
- Protect us from the sun's harmful UVB rays
- Regulate our climate
- Protect against flooding and drought
- Filter water and store drinking water supplies
- Prevent erosion
- Maintain healthy soil

- Pollinate crops and wild plants
- Control pests and disease
- Ensure biological and genetic diversity of plants and animals
- Provide food for humans and animals
- Provide raw materials for human needs (e.g. lumber, fuel, fertilizer, medicines)
- Provide outdoor recreation, education and culture opportunities



january 2010



december 2009

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february 2010

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SUNDAY

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WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

2010 is the International Year of Biodiversity						1	2
						New Year's Day	
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17	18	19	20	21		22	☾
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31							

Ecosystem Services – Our Valuable Environment

Nature provides us with the foundation for our social and economic well-being. Taken together, the benefits that we enjoy from a healthy ecosystem are known as **ecosystem services**.

Examples of ecosystem services include:

- products such as fish, game, crops, nuts and fruits are obtained from sustainable ecosystems such as food and water
- many health and other benefits from regulating conditions impacting climate, waste and water quality
- the health and well being benefits we obtain from outdoor recreation and enjoyment of green spaces

The importance of ecosystem services can be translated into dollars and cents. The total value of all ecosystem services, estimated world-wide, is 33 trillion US dollars per year.

While demands for ecosystem services such as food and clean water are growing, human actions are at the same time diminishing the capability of many ecosystems to meet these demands. Careful management of these ecosystems is critical to ensure important sustainable ecosystem services into the future.

*Source: Costanza et al., 1997 Millennium Ecosystem Assessment
www.millenniumassessment.org*



february 2010



january

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march

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2 Groundhog Day World Wetlands Day	3	4	5 ☾	6
7	8	9	10	11	12	13 Ontario Family Winter Fishing Weekend <i>familyfishingweekend.com</i>
14 Valentine's Day	15 Family Day Heritage Day	16	17	18	19	20
21	22 ☾	23	24	25	26	27
28 ○						

A Healthy Environment Prevents Costly Flooding

Floods are the most costly natural disasters in Canada in terms of property damage and next to spring thaw, heavy storm rainfall is the most common cause of flooding. (*Service Canada*)

From 2000 to 2005 Ontario experienced ten severe storms that exceeded intensities that are normally expected less than once every 100 years. These storms caused over \$360 million in damages.

The faster the water runs from the watershed into the river or lake, the higher a flood will be. Growing populations, greater urbanization

and a decrease in natural areas increase the impact of climate change by diminishing the ability of our watersheds to slow storm runoff.

Accurate flood plain mapping, rainfall and stream flow monitoring systems and computer models to forecast stream flows are indispensable tools for effective management of floods. Nature also plays a significant role. Trees, plants and wetlands help to slow and store floodwaters.

Protecting People and Property: A Business Case for Flood Prevention and Control (Conservation Ontario 2009) www.conservationontario.ca



march 2010



february

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april

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St. Patrick's Day

World Water Day
worldwaterday.org

Spring Begins

Earth Hour (8-9PM)
earthhour.org

A Resilient Environment Adapts to Climate Change

Today, we are grappling with how to adapt to the escalating impacts of climate change: higher temperatures, greater evaporation, possibly decreasing lake levels, changes in biodiversity, and increasing weather variability causing flooding, erosion and drought. As well, we must manage a growing population, increased urbanization, changing uses of water, pollution from land and air plus introductions of exotic and invasive species.

- A healthy environment provides adequate and sustainable supplies of safe water for drinking, recreational, agricultural and industrial uses;
- Clean air ensures healthy people;
- Healthy forests, wetlands and natural areas help us to mitigate and adapt to the impacts of climate change by lowering temperatures, and reducing the harmful impacts of flooding, erosion and loss of biodiversity.



Photo: Lou Wise

april 2010



march

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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				April Fool's Day	Good Friday	
4	5	6	7	8	9	10
Easter Sunday National Wildlife Week nationalwildlifeweek.ca	Easter Monday					
11	12	13	14	15	16	17
18	19	20	21	22	23	24
	Pitch in Canada Week pitch-in.ca			Earth Day earthday.org		
25	26	27	28	29	30	

International Year of Biodiversity

Biodiversity is all around us. It is a wide variety of living things found on land and in water. Plants, animals, forests, insects, birds and fish are examples of biodiversity that are essential for a healthy environment. We depend on nature for food, fresh water and clean air.

Ontario's Biodiversity Council has released an [Interim Report on Ontario's Biodiversity](#). This report is an important milestone towards reporting on the state of Ontario's biodiversity in 2010. The Interim Report provides an overview of the state of biodiversity in Ontario including

a discussion of biodiversity threats and examples of conservation actions being undertaken across the province.

Ontario's Biodiversity Council is comprised of members from 22 provincial organizations. To find out more information on Ontario's Biodiversity Strategy, please visit www.ontariobiodiversitycouncil.ca



may 2010



april

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june

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9 Mother's Day	10	11	12	13	14 International Migratory Bird Day <i>birdday.org</i> 	15
16	17	18	19	20 	21	22 International Day for Biological Diversity <i>cbd.int/ibd/</i>
23	24 Victoria Day	25	26	27 	28	29
30	31					

Value of the Great Lakes

At the heart of North America, the Great Lakes region is an area where 30 per cent of all Canadians live, work, and play. The value of the Great Lakes to Canada and, more specifically, to Ontario, is immense.

One in three Canadians depends on the Great Lakes for their water, the lakes support a booming tourist industry and they connect businesses to markets around the world, not to mention the natural services the Great Lakes provide to the more than eight million Canadians who live in the Great Lakes Basin.

Without clean, healthy and abundant water supplies in the Great Lakes, many sectors would suffer. It has been estimated that the early economic value of the Great Lakes is approximately:

- **Commercial Fishing:** \$35 million (before processing)
- **Transportation:** \$2.2 - \$3 billion
- **Sport Fishing:** \$7.5 billion
- **Recreational Boating:** \$2.2 billion
- **Beaches:** \$200 - \$250 million
- **Wetlands and biodiversity:** \$70 billion



june 2010



may

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july

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4 	5 World Environment Day <i>unep.org/wed</i> International Trails Day <i>tctrails.ca/trails%20day.php</i>
6	7	8 World Ocean's Day <i>theoceanproject.org/wod/</i>	9	10	11	12  Canadian Rivers Day <i>chrs.ca</i>
13	14	15	16	17	18	19  Canada Parks Day <i>parksday.ca/</i>
20	21 Summer Begins National Aboriginal Day <i>ainc-inac.gc.ca/nad/</i>	22	23	24 St. Jean Baptiste Day	25 Gay Pride Week <i>pridetoronto.com</i>	26 
27	28	29	30			

Healthy Watersheds – Healthy Great Lakes

What we do in Great Lake watersheds closely impacts this important natural resource.

Exploding population growth along Great Lakes shorelines is having a serious impact on this important resource, along with changing weather patterns, stormwater runoff, changing land use practices and invasive species. All of these, in turn, impact important fisheries, recreation activities, waterfronts and drinking water for millions of Canadians - revealing just how closely our environment is linked to other areas of our lives.

The area immediately adjacent to the water is the 'nearshore area'. This is where our activities tend to be centered and where we have the most impact on the Great Lakes through shoreline alterations, ruin of wetlands, introduction of exotic species and discharges of pollution from river mouths and other sources.

We can only tackle this issue by working together with Municipalities, the Province, Conservation Authorities, interest groups and landowners.



july 2010



june

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august

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2	3
				Canada Day		
4	☾	5	6	7	8	9
					Family Fishing Weekend <i>familyfishingweekend.com</i>	10
11	●	12	13	14	15	16
						Canada Parks Day <i>parksday.ca</i>
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Stewardship Can Make A Difference

In southern Ontario, the provision of clean air and water depends upon the stewardship of thousands of individual private landowners. Though relatively small in number – less than twenty percent of Ontario's population – these landowners are the custodians of a wide array of wetlands, lakes, rivers, streams, fields, forests and biodiversity that provide ecosystem services that benefit all of us. The value of these services in southern Ontario has been conservatively estimated at approximately \$84.5 billion a year.

The individual steps of private landowners who plant trees, protect wetlands, manage forests, maintain healthy streams, and carry out numerous other stewardship actions are cumulative and add up to a healthier ecosystem for everyone. The more we are willing to acknowledge and support the good stewardship of rural landowners, the more we will all benefit.

Supporting the stewards of the land around us is good for everyone.



august 2010



July

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September

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2 Civic Day	3 ☾	4	5	6	7
8	9	10 ●	11	12 International Youth Day	13	14 Black Out Day <i>blackoutday.ca</i>
15	16 ☾	17	18	19	20	21
22	23	24 ○	25	26	27	28
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Invasive Species

Invasive species refers to alien (also known as introduced, non-native or exotic) plants, animals and micro-organisms introduced into areas beyond their normal range by human actions.

Invasive species negatively affect biodiversity by competing with native organisms. They can cause congestion in waterways, damage to forestry, crops and buildings and damage in urban areas.

As the country's center of economic activity and international trade, Ontario is the most critically affected region in Canada. Over ninety

percent (448) of Canada's invasive plants are found in Ontario. The Great Lakes basin is one of the most vulnerable ecosystems in the world, with over 180 established non-indigenous aquatic species, and a new invader introduced every seven months. The costs of single species invasions such as the zebra mussel on the Great Lakes range from \$3 to \$7.5 billion in cumulative impacts, and sea lamprey control costs exceed \$21 million annually.

Source: OFAH Invasive Species Program



september 2010



august

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october

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5	6 Labour Day	7	8 	9	10	11
12 Grandparents Day	13	14	15 	16 World Ozone Day uneptie.org/ozonaction	17	18 Canadian Forest Week canadianforestry.com
19	20	21	22 Car Free Day worldcarfree.net/wcfd/	23 	24	25
26 World Rivers Day worldriversday.bcit.ca	27	28	29	30		

Value of Clean Water

Keeping water clean at the source and minimizing what impacts it in our watersheds is just 'good business'. Cleaning up contaminated water is costly and sometimes impossible, especially groundwater.

Nature plays a very important role in protecting water. Forests and wetlands provide clean and plentiful drinking water supplies and regulate the flow of water. This protects against flooding and erosion as well as reduces water pollution by filtering, storing, and absorbing pollutants, such as nitrogen and phosphorus.

As well, healthy forests and wetlands protect important stream water flow. Without adequate flow, we experience lower water levels in dry seasons; higher water levels in wet seasons; greater amounts of sediment in rivers; and, increased water temperatures. All of this can also impact the health of important aquatic species and our fishing industry.



october 2010



september

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november

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3	4	5	6	7	8	9
10	11 Thanksgiving	12	13	14	15	16
17	18	19	20	21	22	23
24 350 Day 350.org	25	26	27	28	29	30
31 Hallowe'en						

Green Spaces are Important To Us

Green spaces such as parks, conservation areas and reserves impact different aspects of our lives. In addition to offering outdoor activities that keep us healthy, they protect important forests, wetlands, valleylands and other natural areas that reduce the impact of climate change; protect water quality and quantity; and ensure a rich mix of biodiversity and habitats.

Green spaces can create stronger communities, boost tourism, improve employment opportunities, decrease energy bills and reduce municipal infrastructure costs.



november 2010



october

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december

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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7	8	9	10	11 Remembrance Day	12	13 
14	15	16	17	18	19	20
21  World Fisheries Day garc.org/doyourbit/ 21_11-fisheries-day.html	22	23	24	25	26	27
28 	29	30				

Everything is Connected in a Watershed

Air, water, land and all natural life are connected in a **watershed** and impacted by what we do on the land. And, as it travels across the surface, underground and through our towns and cities, water can become contaminated or overused.

We do not have an endless amount of water available to us. All of our water is recycled through the water cycle. If we take out more water than we should, that water *cannot* be replaced – we must adapt and make do with less.

Planning together to prevent or minimize these threats protects our ecosystem and ensures sustainable resources.



december 2010



november 2010

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january 2011

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		Winter Begins			Christmas Eve	Christmas
26	27	28	●	30	31	
Boxing Day					New Year's Eve	



**A.D. LATORNELL
CONSERVATION SYMPOSIUM**



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Conservation Ontario Represents Ontario's 36 Conservation Authorities

www.conservationontario.ca



Ontario Stewardship Program
MINISTRY OF NATURAL RESOURCES

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The Ontario Stewardship Program represents 43 Stewardship Councils

www.ontariostewardship.org