

## What can we do?

Earth Day provides the opportunity for positive actions and results.

First launched as an environmental awareness event in the United States in 1970, Earth Day (April 22) is celebrated as the birth of the environmental movement.

Earth Day is a powerful catalyst for change. The first Earth Day, spearheaded by Wisconsin Governor Gaylord Nelson and Harvard University student Denis Hayes, involved 20 million participants in teach-ins that addressed decades of environmental pollution. The event inspired the US Congress to pass clean air and water acts, and establish the Environmental Protection Agency to research and monitor environmental issues and enforce environmental laws.

In 1990, two million Canadians joined 200 million people in 141 nations in celebrating the first International Earth Day. In many countries, the global event brought pressure on heads of state to take part in the UN Earth Summit in Rio de Janeiro to address issues such as climate change and the world wide loss of species.

In Canada, Earth Day has grown into Earth Week and even Earth Month to accommodate the profusion of events and projects. They range from large public events, such as Victoria's Earth Walk (5,000 participants), Edmonton's Earth Day Festival at Hawrelak Park (30,000 participants), and Oakville, Ontario's Waterways Clean-up (2,000 participants) to the thousands of small, private events staged by schools, employee groups and community groups.

## Society History

The beginnings of the Royal Astronomical Society of Canada (RASC) go back to the middle of the nineteenth century with the founding of the Toronto Astronomical Club in 1868. The Society was incorporated within the province of Ontario in 1890, received its Royal Charter from King Edward VII in 1903, and was federally incorporated in 1968. Today, the RASC has 28 centres and over 4,500 members world-wide. The New Brunswick Centre was established in the summer of 2000 sharing common goals of various New Brunswick astronomy clubs.

The RASC New Brunswick Centre meets monthly alternating, between Moncton, Saint John, Fredericton, and Miramichi. Meetings are open to the public and all are welcome. Check out our website at [www.nb.rasc.ca](http://www.nb.rasc.ca)



<http://nb.rasc.ca/>

# EARTH DAY 2008

**AN INTERNATIONAL EVENT**  
See the difference you can make...



**Help us bring back stars  
to the city night sky.  
Understand and act on  
light-pollution.**

Help support  
**Earth Day April 22, 2008**  
Turn off the lights  
and enjoy the Night Sky

<http://www.earthday.ca/>

## What is light-pollution?

Light-pollution is **excessive or inappropriate use of artificial light**.

Sky glow over a city, the glare of poorly designed security lighting, a street lamp that intrudes into a bedroom are all examples of light-pollution.

Light-pollution can be classified into the five categories:

- Over illumination creates brightness levels that are excessive for proper seeing, waste energy and add to sky glow.
- Glare is caused by lighting that shines directly into an observer's eyes, reducing their ability to see properly.
- Light-trespass is light on one's property, such as a security light on the rear of a house, that shines into another homeowner's back yard or bedroom windows.
- Clutter is a confusing array of lights, such as a combination of floodlights and pixel boards in a street intersection.
- Light-spills above the horizon (i.e. directly lighting vertically into the sky)

More information about lighting options can be found at the website of:

*International Dark Sky Association*  
[www.darksky.org/mc/page.do](http://www.darksky.org/mc/page.do)

*Royal Astronomical Society of Canada*  
*Light-pollution Abatement Website*  
[www.rasc.ca/lpa/](http://www.rasc.ca/lpa/)

## Why is light-pollution a problem?

- Light-pollution represents wasted energy. It is a waste of money and ultimately contributes to air pollution and global warming.
- The glare of poorly designed lighting impairs human seeing.
- Inappropriate light has many negative effects on plants, bats, fish, animals and birds.
- Excessive light during sleeping hours adversely affects the human immune system and may lead to serious health problems.
- Night-sky points of interest such as the Milky Way are obliterated by sky glow from cities and glare from individual lamps.



Orion, hovering over Moncton, a natural wonder that is invisible to city dwellers because of light-pollution.  
- Tim Doucette (RASC-NB member photo)

## What about security?

It's natural to assume that more light leads to better security, but that is not the case. Much security lighting causes light-trespass, glare, or direct upright into the sky, which reduces human seeing and visual contrast in the dark.

Studies show that reduced light levels actually result in less crime and vandalism. Security lighting must be carefully designed if it is to be effective. Crime is a complex issue, but more and brighter lighting is not the solution. A comprehensive study by the Chicago Police Department (Google: Chicago Alley Lighting Project) found that increased lighting had no impact or actually increased crime rates.

## Earth Day Event History

Celebrated every April 22, Earth Day is the largest, most celebrated environmental event worldwide.

More than 6 million Canadians join 500 million people in over 180 countries in staging events and projects to address local environmental issues. Nearly every school child in Canada takes part in an Earth Day activity.

Environmental challenges abound as our daily actions pollute and degrade the fragile environment that humans and wildlife depend on to survive.