

Canadian Rivers Day



"RIVERS ARE THE VEINS OF MOTHER EARTH."

**Celebrate your river
on June 8th, 2008**

...a national day for all Canadians
to celebrate the vital role rivers
play in our lives.

Canadian Rivers Day Ottawa Paddle 2008

Greetings Ottawa River Paddlers!

Ottawa Riverkeeper and the Canadian Heritage Rivers System are pleased to welcome you to the 4th annual Ottawa River paddle for Canadian Rivers Day!

For the fourth consecutive year, Ottawa Riverkeeper and the Canadian Heritage Rivers System are celebrating Canadian Rivers Day with a 20 kilometre guided paddle on the Ottawa River from Victoria Island to Petrie Island. On June 8, 2008, this urban paddle brings people and the river together and will foster river stewardship and healthy living.

The entire community is invited to join this unique educational experience on the legendary Ottawa River. The celebration is a unique way to educate the public about our mighty river which flows past Parliament Hill, Rideau Falls, the city wastewater treatment plant, ecologically significant alluvial islands, altered shorelines, stormwater pipes, and much more.

What is Canadian Rivers Day?

In 2003, then Minister of Canadian Heritage, Sheila Copps proclaimed Canadian Rivers Day to take place on the second Sunday of every June. Various community organizations started holding events to acknowledge the importance of rivers in our lives. Canadian Rivers Day gives us a chance to experience and pay tribute to our rivers.



What is the Canadian Heritage Rivers System (CHRS)?

The Canadian Heritage Rivers System is Canada's national river conservation program. It promotes Canada's river heritage by protecting and recognizing Canada's most outstanding rivers. There are currently 39 rivers in the CHRS, covering more than 10,000 kilometres. It fosters responsible river stewardship and builds on public support and cooperation. www.chrs.ca

What is Ottawa Riverkeeper?

Ottawa Riverkeeper brings people together to protect and promote the ecological health and diversity of the Ottawa River and its tributaries. Expert and independent, our organization advocates for responsible decision-making; advances public education and participation; and ensures compliance with protective regulations throughout the watershed. www.ottawariverkeeper.ca

Itinerary

- 8:30** Bus Shuttle leaves from Petrie Island back to Victoria Island for those leaving vehicles at take-out
- 8:30 - 9:45** Registration/Safety check at Victoria Island
- 10:00** Leave Victoria Island
- Lunch** Hour lunch at Kettle Island
- 16:00** Flotilla arrives at Petrie Island
- 16:00 - 18:30** Exhibit/ Turtle Tour at Petrie Island
Cookies & sweets sale by B.Goods Bakery and
Gourmet BBQ by Essence Catering. A portion of the
proceeds will be donated to Ottawa Riverkeeper
- 16:30** Shuttle leaves from Petrie Island
Guided tour of Petrie Island with the
Friends of Petrie Island
- 17:30** Last shuttle leaves from Petrie Island

A Vision for Victoria/Asinabka Island

Many people from across the globe have been involved in the development of Grandfather (Elder, Doctor) William Commanda's vision for Asinabka/Victoria Island over the years.

It is a vision for the healing of indigenous peoples, the healing of relationships with all others, and the healing of our collective relationship with Mother Earth.

It holds a dream for a future where...

- 1) the sacred Chaudière Rapids can run freely again and can symbolize reconciliation with Water;
- 2) the concrete clad Chaudière Island can become a city park in the heart of the country, with both forested wild space and a historic interpretive centre;
- 3) the First Peoples of this land can regain their strength and heritage in a centre dedicated to their development;
- 4) where they can then share their values and culture with all others in the spirit of peace-building in an international conference centre; and
- 5) feet can once again pound their prayers and reverence on the sacred island of fire, and the communal spirit of pow wows of old ignite and inspire.

The human, environmental, cultural and economic fruits of this vision benefit Mother Earth, humanity, Aboriginal Peoples and the citizens of the National Capital Region. www.circleofallnations.com



“We must come together with one heart, one mind, one love and one determination”

***William Commanda,
OJIGKWANONG***

Safety Reminders

We take safety very seriously. The Ottawa Police Marine Division cruiser will help us to ensure the safety of all participants. In addition, each Voyageur canoe is steered by experienced river-rescue guides. The Ottawa River is a big river. Wind and water conditions can change quickly. The water is cold at this time of year and hypothermia is still a risk.

To ensure a safe trip on the river, please:

- Wear a personal Flotation Device (PDF) at all times. There must be one PDF of appropriate size for each person in the boat.
- Have at least one whistle or noise making device in your boat.
- Have at least one first aid kit in your boat.
- Have a floating rope of at least 15m in your boat.
- Objects such as large rocks and bridge abutments are hazards if your boat turns sideways against such an obstruction. Keep your boat facing downstream to avoid tipping over.
- Avoid standing and moving around unexpectedly in your canoe
- If you see lightening or hear thunder, head for the nearest shore, get off the river, and wait for instructions from the lead canoes.



Canadian Rivers Day - Ottawa Paddle - June 10, 2007

Lunch at Kettle Island

Nature Conservancy Canada protects 184 hectares of mature forests and wetlands on Kettle Island, or over 90% of the total area of the island. This exceptional area was donated to it by Bowater Canadian Forest Products Inc.

The natural environment of Kettle Island consists of a silver maple–American basswood forest and an exceptional forest ecosystem composed of common hackberry. Eight rare or threatened species, such as the map turtle, a species of special concern in Canada, are protected in perpetuity thanks to this donation.

Nature Conservancy Canada is a private non-profit organization that works to protect in perpetuity natural areas that are significant in terms of biodiversity. It has been active in the field for over 45 years and has helped preserve more than 770,000 hectares across Canada, including over 15,000 hectares in Quebec. The Nature Conservancy of Canada works in close cooperation with landowners, public and private companies, conservation groups and governments.

For more information contact:

Nature Conservancy, Quebec Region
(514) 876-1606, Ext. 226

Or visit: www.natureconservancy.ca

****WARNING:**

There are patches of POISON IVY in the bushes of this Island, be careful!



There will be two small **washroom** utilities available, please do not leave toilet paper on the Island.

Please listen carefully to the leaders for departure time, and return to your canoe calmly and carefully. Remember it is not a race!

Let's Go!!
Find the numbers on the map and read about
the sites that we'll paddle by

Our historical relationship with the Ottawa River...
(Thanks to Anne Fitzpatrick for writing the following peices)

Victoria Island ⁽¹⁾

Many threads of Ottawa's history overlap at Victoria Island. This was a resting spot for Aboriginal people, voyageurs and explorers before they would portage around Chaudière Falls. From 1800 to 1853, the island was home to inns, two mills, a brewery and workers' houses. By 1870, Victoria island had become a thriving logging site with gang saws that had 30 to 40 blades each cutting white and red pines into boards to be sold to the American market. From 1882 until 1902, as many as 350 million feet of timber were cut each year. The Great Fire of 1900 burned over the island and destroyed 50 million feet of piled lumber and most buildings with the exception of Booth's Mill.

The Carbide Mill on Victoria Island ⁽¹⁾

Victoria Island was also one of Ottawa's first high-tech environments. Built in the 1890s and located on Victoria Island this stone building combined charcoal and limestone with the hydroelectricity of the Chaudière Falls to produce calcium carbide which was a popular source of acetylene for illumination.

Jacques Cartier Park ⁽²⁾

This site was once a camp for Aboriginal travelers along the Ottawa River. During the 1940s the land was purchased by the Government of Canada and became one of the first nationally owned parks on the Quebec shore of the Ottawa River. Today the park is a key location for activities during festivals such as Winterlude and Canada Day.



The Parliament Buildings ⁽³⁾

The Parliament Buildings were designed to accommodate the 250 government employees who worked in Ottawa in the 1860s. The plan was to have a Centre Block where the Parliament would sit and the Left and Right Blocks would serve as office buildings. It was modeled after Britain's Houses of Parliament at Westminster. The construction of the Ottawa's building was supposed to cost \$300 000 which was less than 3 percent of the cost of construction for the British Parliament. The Parliament Buildings were completed between 1859 and 1866 and the Library of Parliament was finished in 1877.

A fire in 1916 destroyed the Centre Block but the Library of Parliament was saved by a librarian who closed the metal doors which linked the two buildings. Construction for the new Parliament began immediately after the fire and the new building resembled the older one, except that the architect John Pearson added an extra storey and modified the interior to increase the floor space by 50 percent. The new Parliament building, was designed by John Pearson and opened in 1920. It has become the most recognizable landmark of Canada. The Library of Parliament is an excellent example of neo-Gothic style of architecture.



Going past Parliament Hill on Rivers Day - June 11 - 2006

Chaudière Falls ⁽¹⁾

Chaudière Falls was a sacred location for Aboriginal people. Samuel de Champlain watched as his Aboriginal guide performed rituals by the river so that the travelers would have a safe passage around the dangerous water of the falls. Beginning in 1880 the hydraulic power of the Falls was one of the earliest uses of water to produce electric light. In 1891, Ahearn and Soper used the electricity to power their first street cars. There are two stations on Victoria Island which still produce power today and provide 3 percent of Ottawa's electricity.

The Peace Tower ⁽³⁾

The construction of the 300 foot Gothic spire known as Peace Tower began in 1919. It was also designed by the architect John Pearson and was meant to be the tallest structure in Ottawa and honour the Canadian men who had served in the recently ended World War. The top level of the Peace Tower has a four-faced clock, each face being roughly 15 feet in diameter. The Peace Tower was completed in 1927 and its bells can be heard throughout downtown Ottawa.

The MacDonald Cartier Bridge ⁽⁴⁾

Construction of this bridge that links Ottawa and Hull, and spans 521 feet, began in 1963 and was completed in 1965. It is named after the two leaders of the joint ministry of the Province of Canada—John A. Macdonald and Georges Etienne Cartier both of whom played a key role in the creation of Canada by the British North American Act of 1867.

Samuel Champlain Statue at Nepean Point ⁽⁵⁾

The statue of Samuel de Champlain, which was unveiled in 1915, was put in place in recognition of Champlain's voyage on the Ottawa River in 1613. The astrolabe in Champlain's hand is upside down. Champlain lost his astrolabe on a portage near present day Renfrew. It was discovered 254 years later and is now on display at the Museum of Civilization.

Rideau Canal/Ottawa Locks ⁽⁶⁾

The Rideau Canal was built between 1826 and 1832 and extends from Bytown (Ottawa) to Kingston. It has 45 locks and is the oldest continuously operating canal in North America. It was built under the direction of Lieutenant Colonel John By, of the Royal Engineers who accepted the challenge of creating a links over 200 kilometers of rivers and lakes. The workers of the canal came from two groups: the Royal Sappers and Miners (a specialized military engineering group) and laborers, mainly of Irish and French descent. The work was grueling as the canal cut through dense, forests, rocks and swamps. Many workers died from disease such as malaria. From 1812-1814 Canada was at war with America and the canal was intended to create a safe military supply route as it was feared the Americans would attack at the vulnerable area near the St Lawrence River. Interestingly, when Colonel By returned to England, instead of praise and awards for his work he faced harsh criticisms and interrogations over his spending on the colony of Canada. 2007 was the 175th anniversary of the completion of the Rideau Canal. It was also designated as a UNESCO World Heritage site on its 175th anniversary.



Ottawa Locks, Rideau Canal, Burrows, John, c 1832

The Canadian Museum of Civilization

The Canadian Museum of Civilization is one of the most popular tourist attractions in the National Capital area. The museum was designed by the Métis architect Douglas Cardinal and the external lines are meant to resemble a moving glacier as a reminder of the powerful natural forces which shaped this land. The museum is finished with Tyndall stone from Manitoba. There are two buildings: one is used for exhibition space and the other is the curatorial, administration, conservation and as storage wing. The museum was opened in 1989 and sits on top of 2000 concrete pilings which prevent the museum from sinking into the marshy ground on which it was built.



*The first lumber raft down the Ottawa River, 1806,
Jefferys, Charles William, n.d, watercolour over pencil*

Ecological facts!



The Ottawa River is a globally significant river that provides drinking water for over a million people, exciting recreational opportunities for river enthusiasts and electrical power for use well beyond the watershed boundary, with a length of 1200 km and an average flow of 2,000 m³ per second. It is the largest tributary of the St. Lawrence River and an important river in the Great Lakes St. Lawrence Watershed – the largest freshwater ecosystem in the world.

Hydro power - View an example at the Chaudière Falls dam! ⁽¹⁾

The combined capacity of the hydroelectric generating stations in the watershed is over 4000 MW, producing over \$1 million worth of energy a day. Today, the Dumoine River is the only river within the watershed that characterizes the natural range of variability of an undammed river. There are 7 hydro-electric power dams on the Ottawa River.

Sewage (wastewater treatment plant) ⁽¹⁰⁾

Sewage in the form of municipal wastewater effluent is directly discharged to the Ottawa River and its tributaries everyday. Municipal wastewater has been identified as one of the most significant sources of pollution to surface waters in Canada. Our river system is also receiving water from combined sewer overflows and sewage bypasses that spills when systems are overloaded. During heavy rains it is common for many municipalities on the river to bypass the treatment plant and deliberately discharge untreated sewage into the river because they have reached the capacity of their municipal system.

Paper Mill

There are eight pulp and paper mills in the Ottawa River watershed. Despite the dramatic improvement in their wastewater effluents over the last two decades, today's pulp mills are still major polluters. In 2002, the industry released over 163,000 billions litres of toxic effluent into the Ottawa River.

Alluvial Islands Kettle ⁽⁷⁾, Upper Duck ⁽⁸⁾, Lower Duck ⁽⁹⁾, and Petrie ⁽¹²⁾

Over the centuries, river currents have deposited massive amounts of sand and silt in particular areas, first forming bars and eventually islands upon which flood dependent habitats have developed. A string of such virtually unique, constantly shifting islands of the river have evolved with Kettle Island being the largest and the Petrie Islands being the most ecologically diverse.

Where glacial till has been reworked by river currents to leave behind abundant boulders, the finer sand and mud from the till has been transported downstream to form alluvial accumulations such as Petrie Island, where we end our trip. Upper Duck is another alluvial island, as is Kettle Island, where we will stop for lunch and have an opportunity to examine river-deposited sediments for examples of ripple marks, crossbeds and mud cracks, identical to those seen in the sedimentary rocks seen previously. Such observations of processes in action today provide the basis for interpreting environments of deposition for ancient strata. Where comparable structures are preserved in the rocks, they provide us with criteria for reliable interpretation of our local geohistory.

Poor Shoreline Development – View examples upstream from Petrie Island ⁽¹¹⁾

Poor shoreline development includes clearing the natural vegetation, planting a lawn to the water's edge and removing rocks and weeds in shallow water. Consequently, the resulting bare, unstable shore cannot withstand the forces of erosion, and the valuable shoreline is slowly eaten away. To stop this process, residents often erect retaining walls and back fill, which severs the ecologically important connection between land and water.

Geology of the Ottawa River in the National Capital Region

Allan Donaldson, Friends of Canadian Geoheritage

The drainage basin of the Ottawa River presents a fine display of natural landscapes representative of Canada's compelling geological heritage. Our canoe trip today will provide a sampling of past events recorded in both the rocks and in the cover of unconsolidated sediment discontinuously overlying the solid crust that envelops our planet. Stratified limestone of Paleozoic age (225 – 570 million years old) are exposed on the shores of Victoria Island, and compose the cliffs over which both Chaudière and Rideau Falls cascade.



These horizontally layered sedimentary rocks, which form prominent cliffs beneath the parliament buildings, contain a variety of fossils such as brachiopods, crinoids, trilobites and corals, collectively indicative of marine conditions at the time the sediments containing them were deposited as sand and silt, to be gradually transformed during burial to solid rock by natural cementation. These strata display ripple marks and mud cracks, sedimentary structures indicative of deposition in shallow marine environments. Stromatolites, domed and branching biogenic structures that have grown as a result of bacterial action, form distinctive concentric structures in limestone on the north shore of the Ottawa River, just west of Champlain Bridge. Limestone's provided an important building stone for construction of not only the Rideau Canal, but also the carbide mill on Victoria Island, the Domtar Paper Mill, and other buildings in and around the Ottawa-Gatineau region. The older Nepean sandstone is a durable sedimentary rock that can be seen today in Queensway road cuts near Kanata, close to the quarry from which sandstone blocks were quarried to construct parliament and many other stone buildings.

Sir William Logan, founder of the Geological Survey of Canada, carried out the first systematic geological survey of the Ottawa River in 1845, paddling upstream to the north end of Lake Timiskaming, and returning the same year ((Smith and Dyck, 2007). During his travels Logan recognized significant boundaries within the Canadian Shield (composed of igneous and metamorphic rocks older than 560 million years, collectively designated as Precambrian). These ancient rocks are exposed upstream and downstream from that segment of the Ottawa River along which we will travel, and in the Gatineau Hills to the north. Precambrian granite, gneiss and other crystalline rocks provided the “basement” upon which the younger Paleozoic sandstone and limestone of our region were deposited.

Much of the presently unconsolidated sedimentary cover along the Ottawa River consists of either boulder-charged glacial till that was deposited during the last Ice Age by a continental ice sheet up to 3 km thick, or accumulations of landslide-prone laminated clay (Leda clay) that, as result of melting of this ice sheet, was later deposited in the Champlain Sea, an estuary of the Atlantic Ocean that extended up the Ottawa River as far as Pembroke. It was not until the waning stages of the Ice Age, from about 12,000 to 7,000 years ago, that the pathway of our present Ottawa River was gradually established, concurrent with recession of the Champlain Sea. Before glaciation, patterns of drainage were completely different; at various times during the Precambrian, rivers transported large volumes of sand, silt and clay, just as does the present-day Ottawa River, but in strikingly different directions, some flowing northward as far as the Canadian Arctic.

In places along the route we will paddle, evidence of much higher stands of the river are presented by abandoned channels and raised beaches, readily traceable in aerial photographs (Geoscape Canada Website), where the former location of islands in the much wider paleo-Ottawa River are marked by elongate clusters of trees.

Those wishing to read more about the geological record should find much of interest in the book by Eyles, 2002. Several local self-guided geotours are posted on the Geoheritage website:
<http://http-server.carleton.ca/~jadonald/fieldtrips.html>

If you want more information on Ottawa Riverkeeper please visit www.ottawariverkeeper.ca

If you want more information about CHRS visit www.chrs.ca

If you have any questions or comments about today's events or about future Rivers Day events, or if you want to order a Rivers Day poster (pictured on front cover), e-mail: rivers.day@pc.gc.ca

**Thank you for helping us to celebrate the 5th annual
Canadian Rivers Day**



Thank you for supporting a clean and healthy Ottawa River & making this celebration a safe journey



Whispers Pub & Eatery
249 Richmond Road - Ottawa



A Circle of All Nations

YCCC
National Capital Region
YM/WCA Canoe Camping Club

LACOMBE TOILET RENTALS

Ottawa Police Services
Marine Division

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Christie Walther
Making Vital Connections



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& our amazing volunteer organizing committee!

Celebrate the Ottawa River with

Canadian
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