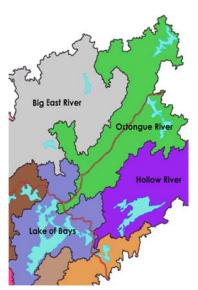


## A Paddler's Guide to the lower Oxtongue River and Marsh's Falls

This guide is devoted to paddlers exploring the tranquil waters, lush wetlands, and the beautiful waterfall on the lower Oxtongue River. The natural and cultural heritage associated with this river is a legacy being preserved by the Lake of Bays Heritage Foundation.



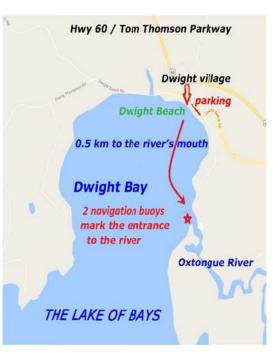
The Oxtongue River is part of the Muskoka River watershed that drains an area the size of Prince Edward Island. The headwaters of



the Oxtongue River flow from Algonquin Park for 42 km before emptying into Dwight Bay in Lake of Bays. With the exception of a tiny portion of the village of Dwight, there are no major urban areas within the watershed. The watershed is, in large part, protected through provincial parks, crown nature reserves, and local land trusts. Consequently the watershed is largely undisturbed and supports many of the large mammals native to Muskoka and Haliburton, such as bear and moose.

## Directions Map >

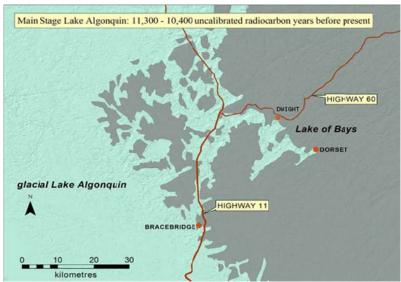
The hills surrounding Dwight Bay are the remnants of a mountainous basaltic dome (Algonquin Dome) that is part of the Canadian Shield. Originally 12,000 metres (39,000 feet) in elevation. Over hundreds of million of years the area has been eroded to its current topographic appearance of relatively low relief (1800 ft above sea



level). These mountains have deep roots and float on the Earth's denser mantle much like an iceberg at sea. As the mountains erode, their roots rise. Thus, the rocky spine of pink gneiss and sparkling quartz that surrounds the perimeter of Dwight Bay was once far below the Earth's surface. It has been folded and faulted into knobs and ridges that trend in a NW-SE direction and generally determine the shape of the Lake of Bays' basin and the course of the Oxtongue River.



Towards the end of the Pleistocene ice age, three kilometer thick glaciers scoured the Muskoka landscape of its soil cover and gouged pockets for future lakes. The weight of the glaciers compressed the Earth's crust creating a massive depression. When the continental glaciers melted about 11,000 years ago glacial Lake Algonquin was formed in that depression. It covered all of what is now Lake Huron, Lake Michigan, and Georgian Bay including all the lakes of Muskoka and south to Lake Simcoe. Lake of Bays was once a mere fjord like inlet on the northeastern end of this vast water body. Geologists estimate that the shoreline of this ancient lake roughly follows the 335 m contour.



The Oxtongue River is the remnant of a spillway created by torrents of water released by a melting glacier that drained into glacial Lake Algonquin. As the weight of the glaciers subsided the depressed land began to rise slowly (and this is still ongoing at 10 cm per century) causing glacial Lake Algonquin to spill out its waters and carve major river valleys to the open sea (Mississippi, and the St. Lawrence rivers). Sands and gravels that had settled in shallow waters at the river's mouth became sand terraces and outwash plains as the lake level dropped. Over thousands of years the lower Oxtongue River has meandered extensively through this outwash plain of sand and silt. The soft sedimentary river banks have been scoured and undercut by the winding river. Strong river currents during the spring melt have cut steep bluffs on the outer banks to

widen the valley. The velocity of the water flow on the river's inner banks is less resulting in deposited sediments forming extensive shallow flats. Over time these silt deposits have cut off some of the meanders from the main stream to form oxbow lakes.



The mouth of the Oxtongue River today contains an abandoned meander belt with shallow oxbow lakes, wetlands and a kettle bog depression left by a partially-buried ice block. Sediments from the Oxtongue delta have been carried by lake currents south east creating a sandspit that almost encloses Ruggles Bay; a reclusive tranquil refuge on the lake. An estuarine delta at the river's

mouth is shaped like that of an ox tongue. It was drowned in 1918 when the Baysville dam raised the lake level by 1.5 metres. Thus shallow waters at the river's mouth require navigation markers.



## **Natural History of the lower Oxtongue River**

The lower Oxtongue River is a regionally significant area of natural heritage. The District of Muskoka has designated it as a "Muskoka Heritage Area" and the Official Plan for the Township of Lake of Bays recognizes it as an area for environmental protection. The 425 acre site is comprised of the river's floodplain and the flanking upland forests. The river's wandering course with abandoned meander belts and oxbow lakes offers a photographic haven for naturalists, and a scenic outing for paddlers in canoes or kayaks.

Within the oxbows floating plants cover the surface of the still water and emergent plants move in from the edges. The gradual accumulation of organic material transforms these oxbows into a wetland of fens, marshes and swamps. They support a great



diversity of species and since some of these water bodies are partly connected to the river, fish species and turtles use them seasonally as well.

Tree and Shrub Species: Most of the floodplain is limited to tree species that can survive the seasonal high flood-waters, such as Red Maple, White Birch, Tamarack, Speckled Alder and Trembling Aspen. A wildfire swept through the floodplain and the surrounding forests in the early 1900's as evidenced by a number of burnt tree stumps and the predominance of sun-tolerant second growth tree species such as birch and poplar. A few 200 year old White and Red Pines survived the fire. Silver Maple, Red Maple, Hemlock and White



Cedar are commonly seen growing on the riverbanks. Many different shrub species grow along the shore, such as Sweet Gale, Mountain Ash, Mountain Holly, leatherleaf, Hobblebush and Narrow-leaf Meadowsweet. They provides cover for nesting Mallards and other ducks. **Wetland plants** like the Broadleaf and Narrowleaf Cattail, Broadleaf Arrowhead and Pickerel-weed grow in the quieter edges of the river's floodplain. These emergent plants have extensive underwater root systems that provide a safe haven for tiny fish and

attract many of the smaller aquatic creatures that birds and other wildlife feed on. They create a shelter from winter cold and wind for mammals and birds and a source of nesting material with their leaves and seeds. Not only do they provide food and habitat for numerous species, they also trap silt deposits.



Floating plants like the Fragrant White Water Lily, the Yellow Pond Lily, Pond Weed and floating Bur Reed also prefer areas at the edges of the river. Many varieties of submerged plants like Tape Grass and Canadian Waterweed help to oxygenate the water .... in addition to fouling propellers.

Along the shore are ferns like the Royal Fern and the Cinnamon Fern plus a variety of sedges such as Fringed Sedge and Lake Sedge. Sedges resemble grasses and grow in thick clusters or tussocks. Near the mouth of the river

there is a Kettle Bog which is very acidic due to the slow decay of plant matter making this a harsh environment. The bog is ringed by Black Spruce and Tamarack. It is covered in a floating mat of Sphagnum Moss and Leatherleaf. Growing on the mat are Cranberry,

Bog Laurel, Cottongrass Bulrush and the uncommon Bog Bean. Carnivorous plants such as Sundew and Pitcher Plants thrive in this type of poornutrient environment because they can capture and consume insects.









Amphibians and Reptiles: green frogs, northern leopard frogs, and spring peepers are present in the river valley. In the tableland forests there are American toads and Gray Tree frogs. During winter, the spotted salamanders, wood frogs, snapping turtles, and painted turtles hibernate in the mud at the bottom of ponds and marshy areas and in late spring the females nest in sandy or gravel areas along the river banks. This kind of floodplain habitat likely supports the Blanding's turtle, which is a 'Species At Risk'. Midland Painted Turtles are the most common species on the Oxtongue and with their distinctive red or orange markings on the sides of the carapace they can be easily spotted while basking on logs.

**Birdlife:** Families of mergansers, mallards and Canada Geese are common on the river. In Springtime loons nest on the shore and are seen throughout

the summer. Great Blue Herons are a frequent sight yet easily



spooked, so approach quietly. The Belted Kingfisher can be identified by its metallic rattling call. You may see their nesting burrows in the high sandy riverbanks. They primarily eat fish, but will also eat reptiles, amphibians, small mammals, young birds and insects.

Both Common Ravens and American Crows are also present. The ravens are heavy birds weighing 1.2 kilograms, having a broad wingspan of 63 cm, wedge-shaped tails and a low-pitched hoarse croak. Ravens can live up to 21 years in the wild. Red-winged blackbirds are common to all types of wetland habitat. Many other bird species, such as Ovenbird, Common Yellowthroat, Magnolia Warbler, Canada Warbler and Chestnutsided Warbler breed in the river valley and in the many isolated habitats in the oxbows and wetlands.

Insects: Of the numerous insect species on the river dragonflies and damselflies are hard to miss. They swoop and dive in the quieter sections of the river busily eating smaller insects. The Chalk-fronted Corporal dragonfly is commonly seen and if you are lucky you will see the Ebony

Jewelwing damselfly and the related River Jewelwing or Hagen's Bleut hitch a ride on your paddle. Butterflies, like the White Admiral, visit their







host plants on the river banks and many more varieties exist in the swamps and marshes. These larger insects are food for many birds in the area, such as the Alder Flycatcher.





**Fish**: A survey in 1974 found an abundance of brook trout, smallmouth bass, pumpkinseed sunfish, blunt-nosed minnow, creek chub and longnose dace in the Oxtongue River. Some of the common species, such as yellow perch and brown bullhead as well as recently introduced fish like northern pike and largemouth bass, are also present. Whitefish and other lake species may use the river and the slow-moving backwaters of the meanders and oxbow lakes for spawning.



Mushrooms or Fungi.: Many plants and trees benefit from their association with mushrooms or fungi. The Mycorrhizal (fungus/root) mushroom is merely the fruiting body of a vast network of mycelium below the ground. The mushroom provides the tree with the minerals it extracts

from the soil. In return the mushroom receives a ready supply of moisture and carbohydrates from the tree. A curious third-party to this arrangement is the family of plants that lack chlorophyll. Instead of generating energy from sunlight, Indian Pipe, Pinesap and Beechdrops are parasitic on host fungi living off the trees. Lichen is actually a symbiotic partnership of two species: an alga and a fungus. Lichen grows very slowly and can survive long periods of dormancy during dry periods.

**Mammals:** White-tailed deer are frequently sighted near the river as are the tracks and scat of moose, black bear and eastern wolf. It is likely that mink and muskrats also inhabit the valley. River otters are sometimes seen on the river and the presence of this higher predator is a good indication of a healthy ecosystem. The beaver

more than any other mammal has the greatest impact on the ecology of the river floodplain. Beavers build dams to create a pond habitat deep enough to construct a lodge that is secure from predators such as coyotes, wolves, and bears and provides access to a food supply. By constructing dams they create



wetlands -- lush environments which attract fish, ducks, frogs and other creatures -- yet the flooding does change the species mix. Plants and trees that are water intolerant will die off, and aquatic species will take over. Animals native to this wet environment flourish. In the swamps alder thickets are harvested annually by the

beavers. Beavers will move on to new territory after they have exhausted the nearby food supply. Future generations of beavers return only when the trees and shrubs have regrown. This cycle has been repeated in the Lower Oxtongue River over several thousand years.



**Cultural Heritage of the Oxtongue River and Marsh's Falls** 



**First Nations** – For hundreds of years First Nations people traveled upriver on the Oxtongue River to reach the best hunting and trapping areas in what is now Algonquin Park. The property owned and protected by the Lake of Bays Heritage Foundation (LBHF) has an original First Nations portage to circumvent Marsh's Falls. Many First Nation families, including the **Big Canoes, Joes, Shipagews** and **Bensons**, are known to have used this route.

At that time the Oxtongue River was known as the *Keewaydino Zeebi* or North River. The sister river, the Hollow River, which flows out of Algonquin Park through Kawagama Lake into Trading Bay, was used for gardening. It was known as the *Wabun Zeebi* or East River.

Archeological evidence of First Nation trading activity has been found at the mouth of the Oxtongue River on the delta's beach.



Dating back to the Paleozoic Era (570 to 225 million years ago), fossilized worm tubes may have been used as beads for trade by First Nations people. Although canoeing originated with the native peoples of

Canada and continued with the early explorers, fur traders, lumbermen and settlers; today it is a pleasurable recreational pursuit with economic benefits for the local tourism economy.

**European Explorers** – Lieutenant Henry Briscoe passed through Marsh's Falls in 1826 to survey a canoe route from Lake Huron to the Ottawa River via the Muskoka and Madawaska Rivers. The purpose was to find a possible canal route that would be less prone to American attacks than the St Lawrence River. Briscoe found no suitable route.

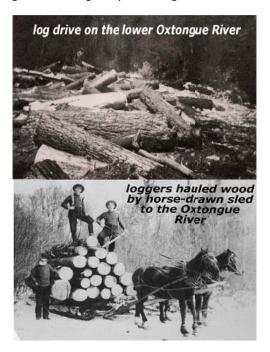


In 1837, the famous explorer of Western Canada, David Thompson, along with four men, surveyed and mapped the water courses and lakes of Muskoka. On September 6, 1837, according to his journal, they portaged their 25 foot cedar-planked canoe up the steep embankment around Marsh's Falls. Thompson completed his survey in December of that year, also concluding that a canal was not feasible. Thompson is reported to be one of the first people to develop the cedar strip canoe as a more durable alternative to the birch bark version. He learned whatever he could from the local natives.

**European Settlement** – During the mid 1800's the potential wealth from harvesting the forest resources in Muskoka grew as the demand for timber increased with the industrialization and urbanization of Britain and the United States. To access the supply of forest resources and facilitate settlement, the government had the lands surveyed for road construction. Despite the surveyors reporting that the land was unfit for farming, the wealth in timber was deemed highly profitable. The Honourable John A. Macdonald (cabinet minister with the Province of Canada) was instrumental in approving the construction of colonization roads to open up Muskoka. As Prime Minister of the newly created Dominion of Canada (1867) Macdonald led his government to pass the Free Land Grant Act of 1868 which encouraged homesteaders to move to Muskoka.

A colonization road reached the Dwight area in 1877, and soon after sawmills sprouted up throughout the region, producing timber

products (lumber and shingles). With the railroads tapping into an expanding American urban market, large lumber companies set up camp throughout Muskoka, and chopped down the forest resource for export. It was a period of massive clear cutting. The Oxtongue River was once part of the Gilmour Timber Route which was used briefly by the Gilmour



brothers to ship logs from the Canoe Lake area of Algonquin Provincial Park down to the Muskoka and Trent River systems and eventually to their mill in Trenton. The Dodge Co. of New York alone took out 80 million feet of pine timber at the rate of 30 million feet a year. In the winter felled logs were taken by sled to rivers and lakes where in the spring, the logs were driven downstream to sawmills. The last stands of virgin giant white pines, towering 40 metres and more in height with a diameter of 1.5 metres or more, were logged off the Oxtongue River watershed by 1900.

**George Francis Marsh:** In 1874, George Francis Marsh bought a block of land and the water power rights to the Oxtongue River Falls, known later as Marsh's Falls. He built a sawmill at the foot of the falls and did a thriving business selling lumber to local settlers.



Since roads were poorly built and difficult to maintain, early transportation focused on the lakes and rivers. In 1884 Captain Marsh constructed a boat works at Marsh's Falls where the lake's



first large steamer was built. Named for his wife, the *MARY LOUISE*, it was used for towing, freighting, ferrying passengers, and operating pleasure cruises between Dorset, Baysville and South Portage.

Captain Marsh appears to have been an open-minded employer as he permitted hop plants to be grown near the falls. The hops were brewed to make beer, no doubt adding to the enjoyment of the workers. Wild hops are still growing alongside Marsh's Falls to this day.

Marsh was not called "captain" due to any military service, but rather because he owned commercial boats.

Marsh persuaded the Grand Trunk Railway to run a daily Muskoka Express train to Huntsville in the summer months. This service provided the first tourist customers for Huntsville and Lake of Bays. To capitalize on the market potential in tourism Captain Marsh established a



steamer service (the Empress Victoria) on the Vernon-Fairy-Peninsula Lakes chain with a terminus at the Huntsville railway station. To link his Lake of Bays steamer (the Mary Louise) to his Peninsula Lake steamer service, he built a portage rail line between Lake of Bays and Peninsula Lake. In 1903 Captain Marsh's Navigation Company hauled 50 million feet of logs, and 1,500 cords of tan bark out of Lake of Bays. With this rapid depletion of the forest resources it became essential for business to diversify the economy. Fortunately it did, thanks to tourism. With expanding opportunities, Captain Marsh began the transition from a logging-based economy to one based on tourism.

## The Present and Future: Eco-tourism and Conservation

For hundreds of years the natural heritage of this area was stewarded by generations of Ojibwe, or Chippewa people. However as the colonial land grants privatized the land to encourage settlement, logging and generate commerce, they also created barriers and compromised the natural environment, its fauna and flora. In the interest of reestablishing a balance, the Lake of Bays Heritage Foundation (LBHF) has



undertaken conservation initiatives, stewardship, and educational heritage programs on the lower Oxtongue River.

The Foundation has acquired three contiguous properties in the lower Oxtongue River area, representing 170 acres and approximately 6.5 kilometers of shoreline. It takes vision, hard work and generous donors to balance the momentum of private ownership and private enterprise. The LBHF is currently engaged in the largest re-naturalization program in the history of the Foundation. You can see signs of this all around the Marsh's Falls property today. The original First Nations portage route has been cleared and marked for paddlers. Trees and butterfly gardens are being planted, nature trails developed and debris has been cleared. The stories and history of the site are being researched and retold.



The conservancy of the lower Oxtongue River is creating a rich legacy for future generations to enjoy and discover.

The LBHF is a volunteer-based non-profit organization committed to protecting the natural, built and cultural heritage of Lake of Bays. As a registered charity tax receipts are provided for donations of \$25 or more. Donations can be made online at:



www.lakeofbaysheritage.ca through Paypal or credit card, or by mail to:

Lake of Bays Heritage Foundation P.O. Box 81, Baysville, ON POB 1A0

Check out the LBHF Facebook page at www.facebook.com/lbhfmuskoka/

Volunteers are always appreciated.

We hope you use this Paddle Tour Guide to enjoy the natural and cultural heritage of the lower Oxtongue River valley. We welcome your comments at www.lakeofbays.ca to help us make it even better.

For more information regarding heritage in Lake of Bays please visit the Heritage Register at www.lakeof bays.on.ca/heritage

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**Created in 2018 by the Lake of Bays Heritage Advisory Committee**