

The National Capital Commission (NCC) is responsible for managing the 20,000-hectare Greenbelt. The Greenbelt is a symbol of Canada's rural landscape, as well as a place where nature is able to flourish and evolve with surrounding urban lands. The landscape is a mosaic of farms, forests, wetlands and research establishments. Here residents and visitors can learn about the natural environment and participate in a range of recreational activities. The Greenbelt is a special place, one that the NCC is committed to present and protect for future generations.

# MER BLEUE BOG

A Special Place  
in the National Capital Greenbelt

## THE EVOLUTION OF MER BLEUE

### HOW DID MER BLEUE GET ITS NAME?

Mer Bleu, which means "Blue Sea," received this name because some early mornings when the light

strikes the mist that blankets the wetland, it creates a blue effect that seems as if you're looking out over the sea.

### WHAT IS A BOG?

A bog is a type of wetland. "Wetland" is a generic term for the different kinds of habitats

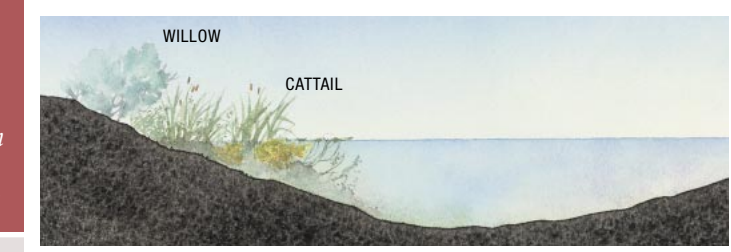
where the land is wet for a period of time each year. There are five major types of wetlands: marshes, swamps, bogs, fens, and shallow open water.

### THE BIRTH OF MER BLEUE

Twelve thousand (12,000) years ago, much of eastern Ontario was under glacial ice. The weight of the ice depressed the Ottawa River valley enough so that, for a time, an arm of the ocean (Champlain Sea) flooded this area.

Once the land surface started to rebound from the weight of the glaciers, the sea gradually withdrew. The retreating ice left a shallow depression. Over the next few thousand years, the depression was cut off from its water sources, and underlying clay prevented water from escaping.

A stagnant lake was created, fed only by precipitation and groundwater. Sediments and dead organic debris



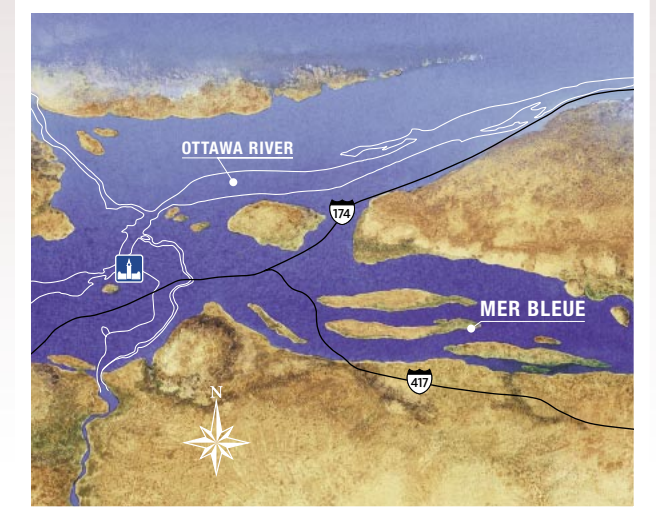
Shallow, stagnant lake



The bog begins to form



Present-day Mer Bleu Bog



The Champlain Sea era

slowly filled in the depression. Water lilies, grew around its perimeter and in the algae-rich waters.

Slowly, sphagnum (pronounced sfa-gnum) moss covered over the lake, and dead organic remains, called

peat, filled in the lake. Sphagnum moss is rootless; it grows on top of the remains of earlier generations that are decomposing into peat.

The accumulation of peat moss at Mer Bleu is greatest in the centre where it is more than six-metres deep. This buildup creates a domed shape that rises above the surrounding landscape.

## NATURAL FEATURES

### HYDROLOGY

Mer Bleu is the headwater for tributaries of Green's Creek and Bear Brook. The bog is fed primarily by precipitation and groundwater sources. Rainfall levels usually exceed evaporation. Excess rainfall, and the raised surface of the bog create an environment where most of the available minerals are obtained from the rainwater. This creates a low-nutrient environment that cannot support much plant life.

A wet zone, called a lagg, surrounds the edge of the bog. This mineral-rich buffer helps to maintain the bog's water level.

### VEGETATION

The bog contains two main types of vegetation: black spruce forest and open heath vegetation. The black spruce forest is dominated by black spruce with some larch, trembling aspen, and grey or white birch.

Heath vegetation refers to a low-lying or dwarf shrub community, which includes several species of

sphagnum moss, Labrador tea, leatherleaf, small cranberry, bog laurel, and sheep laurel. More than nine species of orchids are found in Mer Bleu, along with a variety of cotton grasses and sedges.

A number of carnivorous plants are found in the bog. Species such as sundews, butterworts, and pitcher plants have adapted to the bog's

poor nutrient environment by digesting living creatures, mostly insects, for nourishment.

### WILDLIFE

The bog provides habitat for a variety of wildlife including beaver, deer, fox, coyote, and raccoon. Provincially significant species are also found here, such as the yellow rail, black tern, sandhill crane, great grey owl, hawk owl and Fletcher's

dragonfly. Mer Bleu also supports a population of the endangered spotted turtle.

### RESEARCH AND SCIENCE

The National Capital Commission encourages research that improves the understanding of Mer Bleu's ecosystem. Some initiatives include:

- **Peatland Carbon Study**  
Researchers under the leadership of McGill University are studying peatland carbon dynamics and the importance of peatlands as carbon stores and sinks. This research is globally significant since future changes in peatland carbon storage have the potential to influence climate change.

- **Spotted Turtle Research**  
Local researchers continue to study the spotted turtle population, which is listed as an endangered species by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). The species is vulnerable to habitat alteration by humans, nest predation by

raccoons, and pollution. Consequently, areas inhabited by the spotted turtle are considered critical habitat and managed by the NCC accordingly.

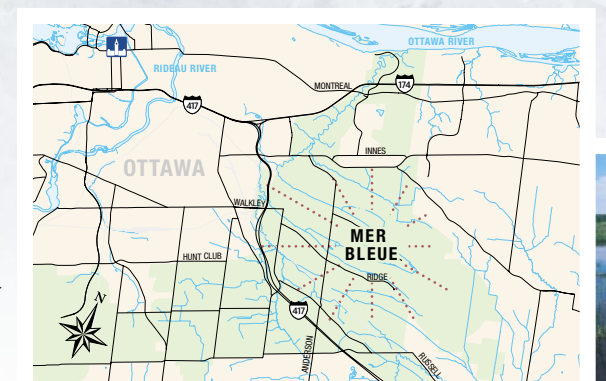
- **Wetland Education**  
Mer Bleu is a living laboratory frequented each year by elementary, secondary and

university students who view and study the bog's vegetation and ecological diversity.

### WHAT IS THE NCC DOING TO PROTECT MER BLEUE?

The best way to protect the ecological integrity of the bog is by maintaining its natural diversity. To do this, the NCC:

- manages the bog as a core natural area with the primary objective of conserving natural resources;
- assesses opportunities to enhance the natural area buffer that surrounds the bog's core natural area. Enlarges the size of Mer Bleu by acquiring adjacent wetlands;
- works with public agencies to ensure future developments near the bog do not result in negative ecological and social impacts;
- encourages interdisciplinary research that improves the understanding of the bog's ecological processes.



Eastern portion of the Greenbelt

Mer Bleu Bog Trail



University group



Sundew



Peatland carbon study

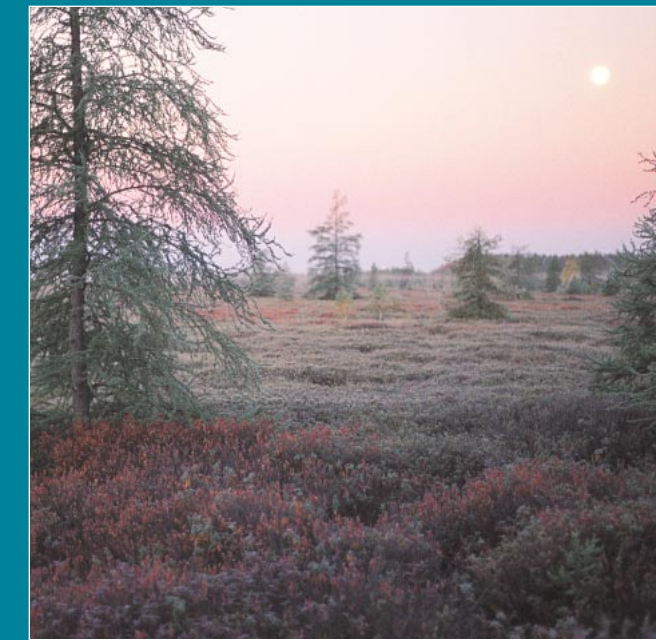


Winter walk



## VISITING THE MER BLEUE BOG

The Mer Bleu Bog Trail, with its one-kilometre-long boardwalk and series of interpretive signs, provides an opportunity to explore this unique wetland. A picnic shelter, hiking and cross-country ski trails add to public enjoyment.



Mer Bleu is a 3,500-hectare wetland protected under the Ramsar Convention, a treaty for the protection of wetlands of international importance. It is located approximately 10 kilometres southeast of Parliament Hill, in the National Capital Greenbelt.